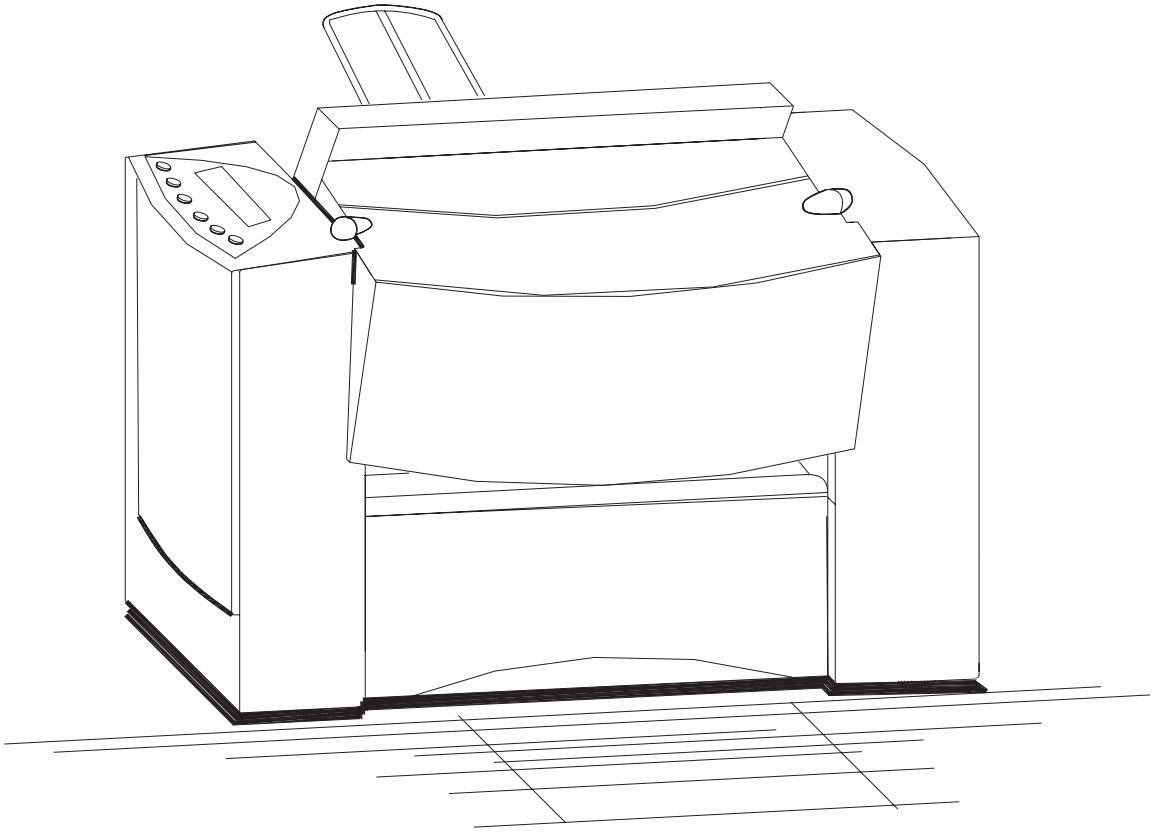
5K-LE

Bryce

World Leader In Address Printers



Owners Manual

WARNING

WARNING: HIGH VOLTAGES ARE PRESENT BEHIND THE COVERS AND IN THE PAN ASSEMBLY.

Never remove the pan access cover assembly or rear cover assembly since there are no user serviceable parts inside. The electrical and/or sensitive parts may only be serviced by an authorized Service Representative.

Important Safeguards :Read all instructions before attempting to operate this equipment.

- To reduce the risk of fire and/or electric shock, do not attempt to disassemble this machine.
- The machine is not intended for use in hazardous locations. Do not use in environments known to contain flammable or explosive gases.
- To prevent overheating, do not cover vent openings or use the machine over a radiator or heat register.
- To reduce the risk of injury, refer all non-operator service functions to qualified service personnel.
- Access only those operator designated areas of machine for jam clearing. All other areas of machine requiring disassembly or removal of covers should only be accessed by qualified service personnel.
- This machine cabinet serves to enclose hazardous parts. If the machine has been dropped or otherwise had the cabinet stressed in any way, report it to your local service representative.
- In the performance of operator service procedures, be certain the machine is unplugged from the wall.
- Do not attempt to use this product in an unauthorized manner. To do so may expose you to mechanical and / or electrical hazards.
- Do not expose power cord to sharp points or edges.
- To protect against shock, the power cord must only be plugged into a grounded receptacle. The ground pin on the plug must never be removed.
- The power cord should be routed so it cannot be walked upon.
- Do not operate this machine with a damaged power cord or plug.
- Unplug or otherwise disable this machine before cleaning.
- Know how to turn off power in the work area, and to summon help in the event of an emergency.
- Do not remove safety covers for cleaning, adjustments or repairs. Call your service representative.
- Keep office supplies such as paper clips, staples, rubber bands, etc., away from machine.
- Keep loose clothing ties, jewelry, and long hair away from moving parts of this machine.
- Ink formulations for use in this machine are critical. Use only those specified.
- **Notice**: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Treat every circuit as if it were live. Check first with a neon tester or a voltmeter.

Federal Communications Commission Compliance

"This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1). This device may not cause harmful interference, and

2). This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with FCC Rules Part 15 subpart B Class B for a digital device. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

Canadian DOC Compliance.

"This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Caution
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
VORSICHT
Explosionsgefahr bei unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.
ADVARSEL
Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage tilleverandøren.

Notice

The information in this document is subject to change without notice. Bryce Office Systems makes no warranty of any kind with regard to the material contained herein. Bryce Office Systems will not be liable for incidental or consequential damages in connection with the furnishing, performance or use of this material.

FOREWORD

INTRODUCTION

UNPACKING **Chapter 1**

Unpacking the Printer ..... 1 - 1

PARTS OF THE PRINTER **Chapter 2**

Printer Parts & Locations ..... 2 - 1

SETTING UP THE PRINTER **Chapter 3**

Choosing a Good Location for the Printer ..... 3 - 1
Removing Protective Materials ..... 3 - 1
Installing the Wire Form Assembly ..... 3 - 2
Installing the Sliding Fence ..... 3 - 3
Connecting to the Computer ..... 3 - 4
Connecting the Power Cord ..... 3 - 5

TRYING OUT THE PRINTER **Chapter 4**

Power On ..... 4 - 1
Installing a Ink Jet Cartridge ..... 4 - 1
Removing a Ink Jet Cartridge. ..... 4 - 3
Preparing the Media ..... 4 - 4
Media Types ..... 4 - 5
Setting the Proper Feed Gap ..... 4 - 6
Setup with #10 Envelopes ..... 4 - 7
Wire Form Adjustments ..... 4 - 7
Wire Form Center Adjustment ..... 4 - 8
Wire Form Height Adjustment ..... 4 - 9
Setting the Feed Ramp ..... 4 - 9
Setting the Sliding Fence ..... 4 - 10
Fine Tuning the Adjustment Lever ..... 4 - 11
Adjustment of the Left Hand & Right Hand Slider Assembly ..... 4 - 12
Output Stack Height ..... 4 - 13
Factors that Affect the Printers Performance ..... 4 - 13

CLEANING AND MAINTAINING THE PRINTER **Chapter 5**

PREVENTATIVE MAINTENANCE FOR THE PRINTER ..... 5 - 1
Cleaning the Feed Rollers ..... 5 - 1
Cleaning the Ink Jet Cartridge ..... 5 - 1
Cleaning the Sensor Assembly ..... 5 - 2

Cleaning the Right & Left Hand Slider Rollers....5 - 2
Cleaning the Floor and Covers ....5 - 2

PRINTER MENU SYSTEM **Chapter 6**

FRONT PANEL CONTROLS AND LCD DISPLAY ....6 - 1
What does the display show....6 - 2
MAIN MENU ....6 - 3
- 1. Address Layout ....6 - 3
- 2. Print Quality....6 - 5
- 3. Font ....6 - 5
- 4. Barcode ....6 - 6
- 5. Address Recovery ....6 - 7
- 6. Clear Counter....6 - 7
- 7. Job Settings ....6 - 8

SETUP MENU....6 - 9
- 1. Heavy Media Mode ....6 - 9
- 2. Test Print Head ....6 - 9
- 3. Purge Print Head....6 - 10
- 4. Lines Per Address ....6 - 10
- 5. Communications ....6 - 10
- 6. Hex Dump Mode....6 - 11
- 7. Language....6 - 11
- 8. Env. Feed Delay....6 - 12
- 9. Env. Auto Eject....6 - 12
- 10. Rom Revision#....6 - 13

SERVICE MENU ....6 - 14
- 1. Left Justify ....6 - 14
- 2. Test Paper Sensor....6 - 15
- 3. Test Shuttle Motor ....6 - 15
- 4. Test Paper Motor ....6 - 16
- 5. Test Display ....6 - 16
- 6. Env. Bottom Edge....6 - 16
- Resetting the Printer....6 - 17

TROUBLESHOOTING & DIAGNOSTICS **Chapter 7**

SYMPTOMS & SOLUTIONS ....7 - 1

PRINTER MENUS **APPENDIX A**

5K-LE MAIN MENU ..... A - 1
5K-LE SETUP MENU ..... A - 3
5K-LE SERVICE MENU ..... A - 5

HEX CHART **APPENDIX B**

HEX CHART ..... B - 1

PRINTER CONTROL COMMANDS **APPENDIX C**

PCL COMMAND CODES ..... C - 1

CHARACTER SET **APPENDIX D**

5K-LE CHARACTER SET ..... D - 1

COMPUTER INTERFACE WIRING DIAGRAM **APPENDIX E**

RS 232 SERIAL CABLE WIRING DIAGRAM ..... E - 1
CENTRONICS CABLE ..... E - 2

PRINTING WITH SOFTWARE **APPENDIX F**

SOFTWARE TABLE OF CONTENTS ..... F - 1
SOFTWARE SETUP ..... F - 2

TECHNICAL SPECIFICATIONS **APPENDIX G**

US MAIL REQUIREMENTS **APPENDIX H**

DELIVERY POINT BARCODE ..... H - 1
PLANET CODE BARCODE ..... H - 2
CODE 39 BARCODE ..... H - 2

GLOSSARY **APPENDIX I**

ORDERING INFORMATION **APPENDIX J**

OPTIONS & SUPPLIES ..... J - 1

Who is this manual for?

This manual is for the person who is new to the Bryce 5K-LE Address Printer and needs step by step instructions to setup and operate the printer.

The appendix at the end of the manual has information for those who are familiar with the 5K-LE printer and simply want a quick reference or want more specific technical information on the 5K-LE printer.

Section 1 - Unpacking
A list of the components that came with your new printer.

Section 2 – Parts of the Printer
Introduces you to the printer and where components are found.

Section 3 – Setting up the Printer
Describes the basics of how to setup and install the components of the printer for the first time.

Section 4 – Trying out the Printer
Step by step instructions to operate the address printer and some adjustments to maximize the performance of the printer.

Section 5 – Cleaning and Maintaining the Printer
General maintenance steps to keep the printer clean and functioning properly.

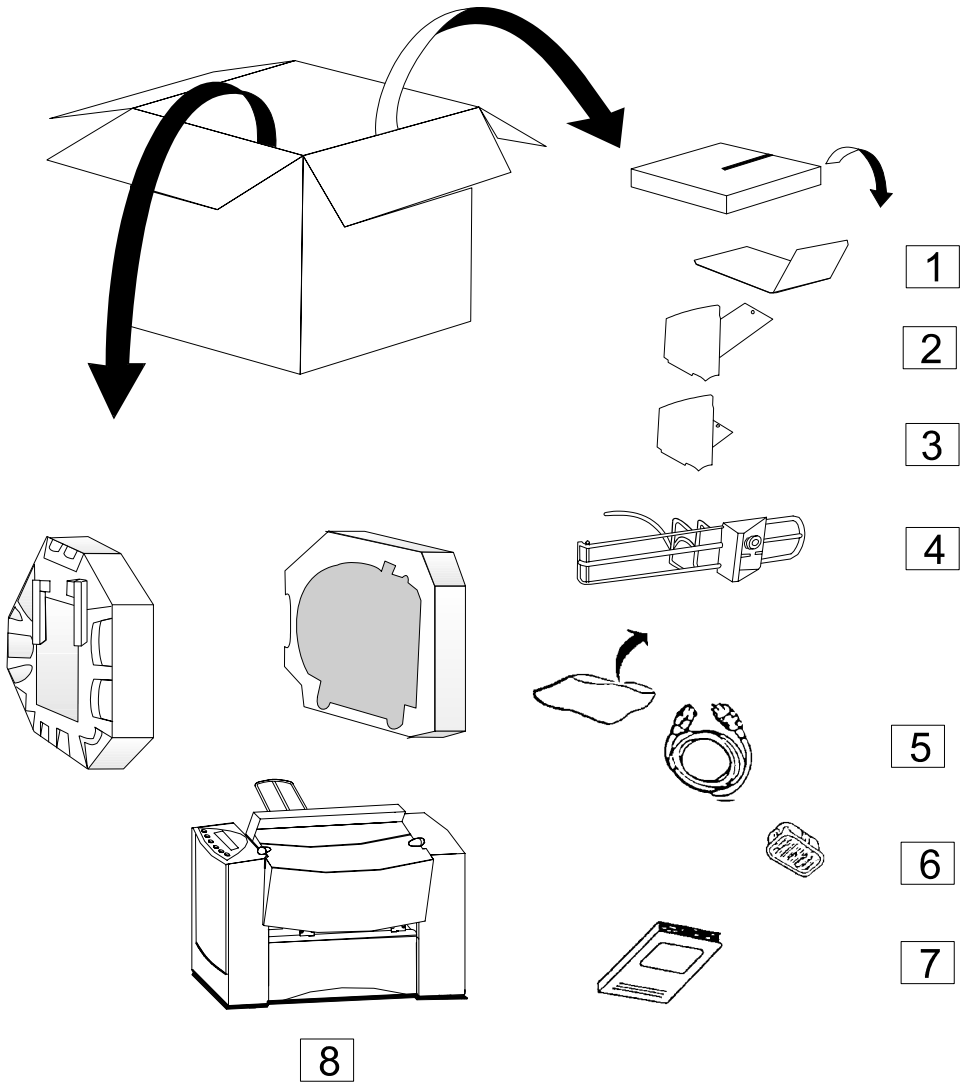
Section 6 – Printer Menu System
Explains each of the menu options of the address printer.

Section 7- Troubleshooting and Diagnostics
A list of possible problems you may encounter when operating the printer and their solutions.

Appendices
The appendices include a quick reference table for the 5K-LE menus, a listing of the PCL commands the printer recognizes, a hex chart to help work through a HEX dump, and references of setting up the most popular software to work with the printer. The final section has a list of supplies available for your printer.

Unpacking the Printer

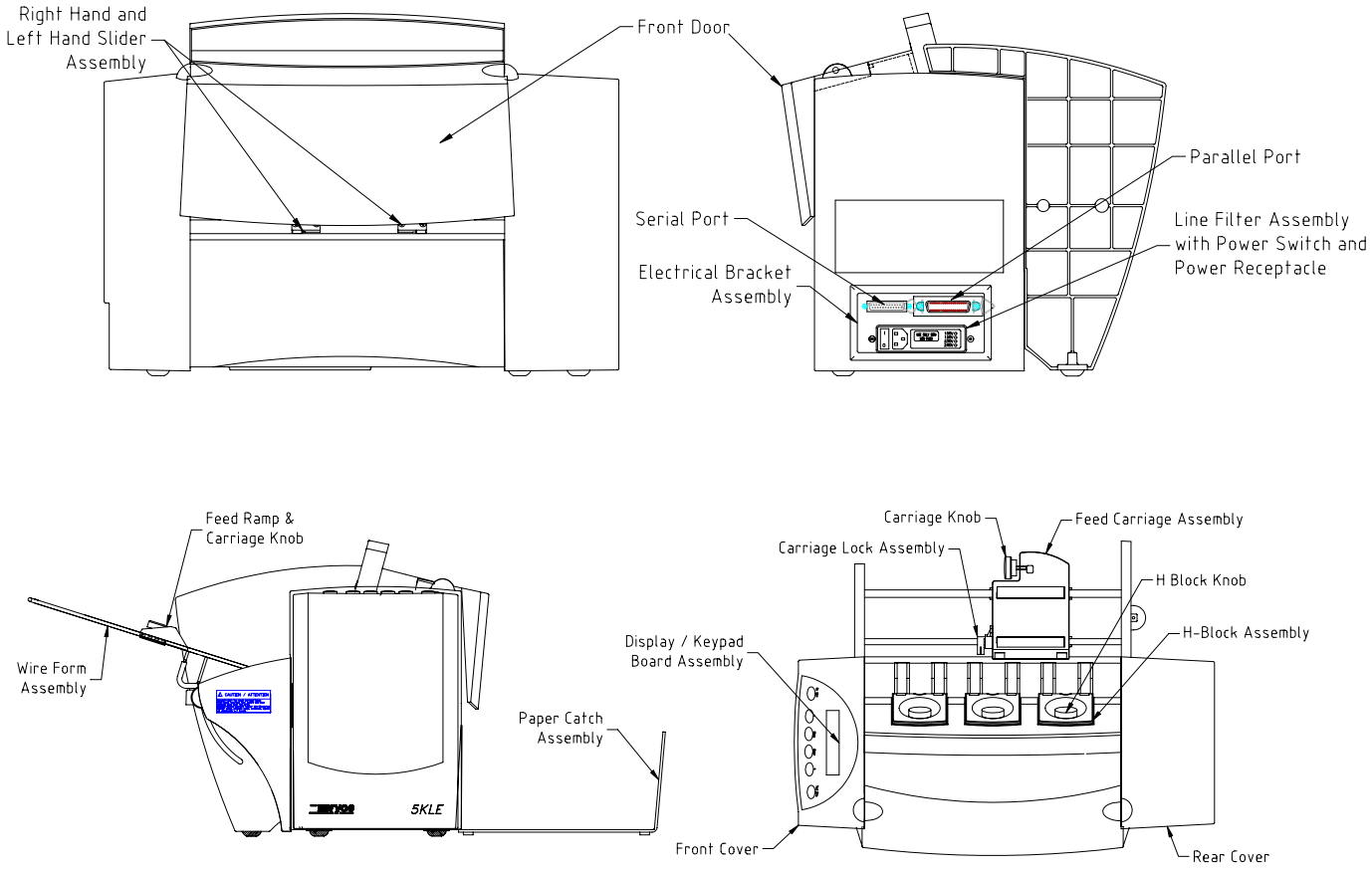
- As you remove the boxes contents, check the pieces against the following list.



☑CHECK LIST

__ 1. PAPER CATCH ASSEMBLY
__ 2. LONG FENCE
__ 3. SHORT FENCE
__ 4. WIRE FORM
__ 5. LINE CORD
__ 6. INK CARTRIDGE
__ 7. USERS MANUAL
__ 8. ADDRESS PRINTER

Printer Parts and Locations



Input Bin

Media for printing is placed in the input bin. The input bin consists of the Wire Form assembly, Feed Carriage Assembly, Sliding Fence (not shown for ease of illustration) and Separator H-Blocks. These components adjust to run a variety of media.

Control Panel & Print Station

The print station is the main nervous center of the Address Printer. The ability to change the print quality and speed is handled through the Control Panel and menu options. Use the printers Adjustment Lever to further enhance the quality of the print.

Paper Catch Assembly

The printed media is placed in the Paper Catch Assembly. Media can stack of up to five (5) inches in the tray before it has to be emptied.

Choosing a Good Location for the Printer

The following environmental considerations must be kept in mind when selecting a location for the Address Printer. Doing otherwise may affect the operation and performance of the Address Printer.

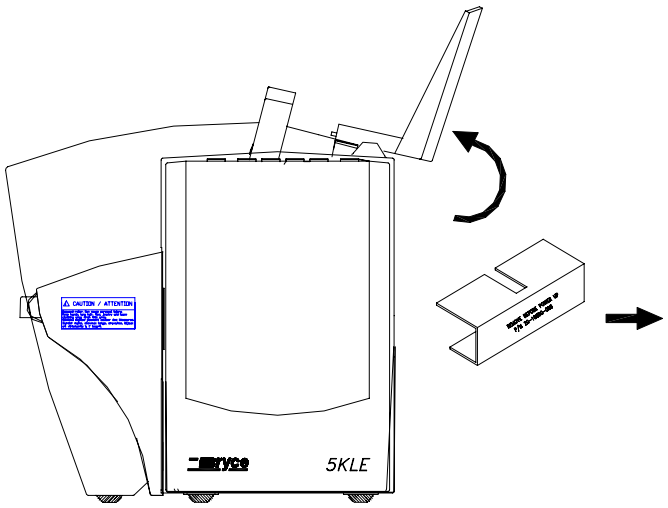
1. Place the printer close enough to the computer for the parallel or serial cable to reach.
2. Place the printer on a flat, stable surface.
3. Use a grounded, dedicated outlet for the printer only. **Note**: Do not use an adapter plug.
4. Avoid locations near direct sunlight, excessive heat, high humidity, moisture, or dust.
5. Keep the entire system away from large motors or other appliances that might disturb the power supply or create potential interference.

Note: AB switches are not recommended for operation with this printer.

Removing Protective Materials

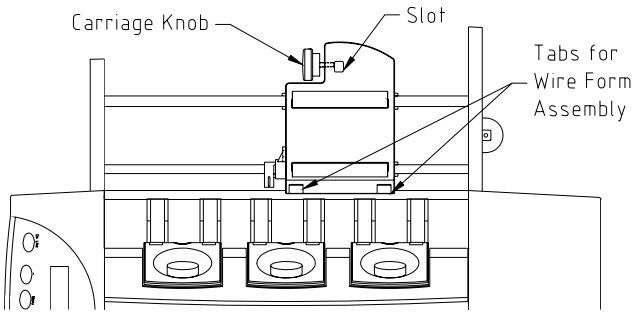
The printer is protected during shipping by a sheet of corrugated cardboard around the Print Head Holder Assembly.

1. Raise the Front Door to gain access to the interior.
2. Remove the corrugated cardboard. Be careful not to grab or pull on the ribbon in the back of the Print Head Holder Assembly.



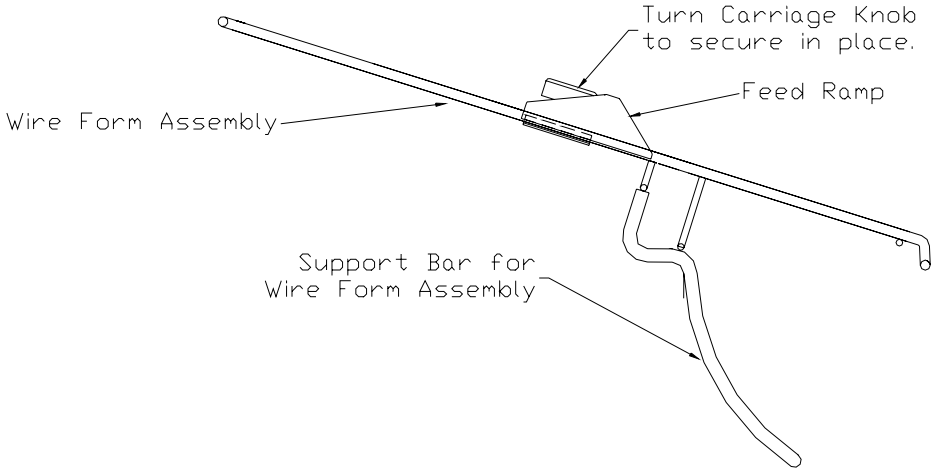
Installation of the Wire Form Assembly

1. Turn the Carriage Knob counter-clockwise on the Feed Carriage Assembly until the end of the Carriage Knob is no longer visible in the slot for the supporting bar of the Wire Form Assembly.



Turn Carriage Knob on the Feed Carriage Assembly to clear the way for the Wire Form Assembly support bar.

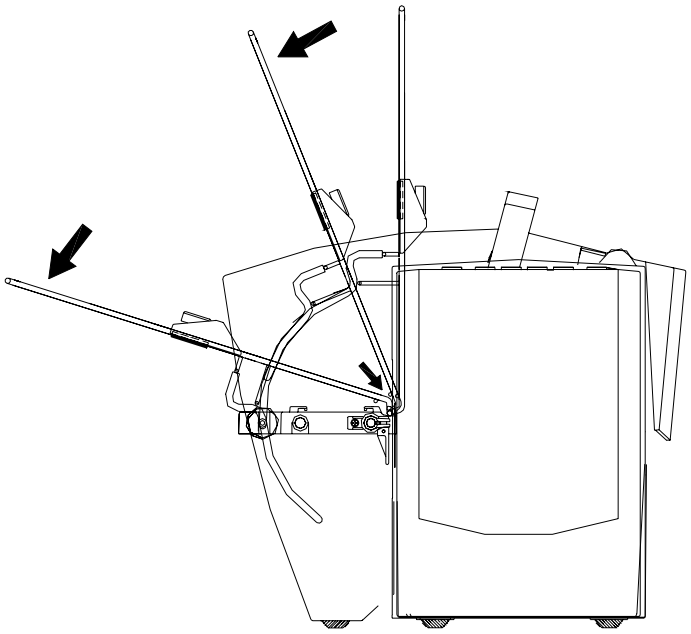
1. Move the Feed Ramp to the center of the Wire Form. Turn the Carriage Knob to secure in place.



Position the Feed Ramp to the center of the Wire Form Assembly and fasten in place.

2. Raise the Wire Form to a vertical position.

3. Press Wire Form underneath the two tabs.



Front Support Plate is not shown for ease of illustration.

4. Rotate top of Wire Form down and insert the curved supporting bar through the slot in the Feed Carriage Assembly. Slight force on the Support Bar may be needed to fit it into the slot.

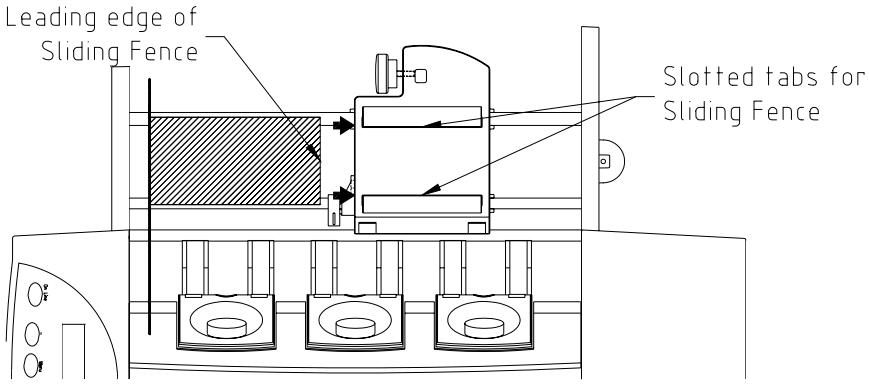
5. Turn the Carriage Knob on the Feed Carriage Assembly to hold the Wire Form Assembly in place.

Installing the Sliding Fence

Included in the Accessory Kit is a long and short Sliding Fence. The fences keep the media together in a stack. Use the short Sliding Fence for postcards up to media the size of #10 envelopes. Use the Long Sliding Fence for all other sizes.

1. Locate the two long slotted tabs on the Feed Carriage Assembly. This is where the Sliding Fence attaches to the printer.

2. Slide the rectangular shaped edge of the Sliding Fence between the two tabs.



The drawing is shown without the Wire Form Assembly for ease of illustration.

Connecting the Printer

Connect the Address Printer to either the serial port or parallel port of the computer. Initialize the Address Printers communications port by sending data to either the parallel or serial port. To change from the serial port to the parallel port or vice versa the printer must be reinitialized or manually changed through the Setup Menu. Doing otherwise may affect the operation and performance of the Address Printer.
To connect printer to the computer do the following steps.

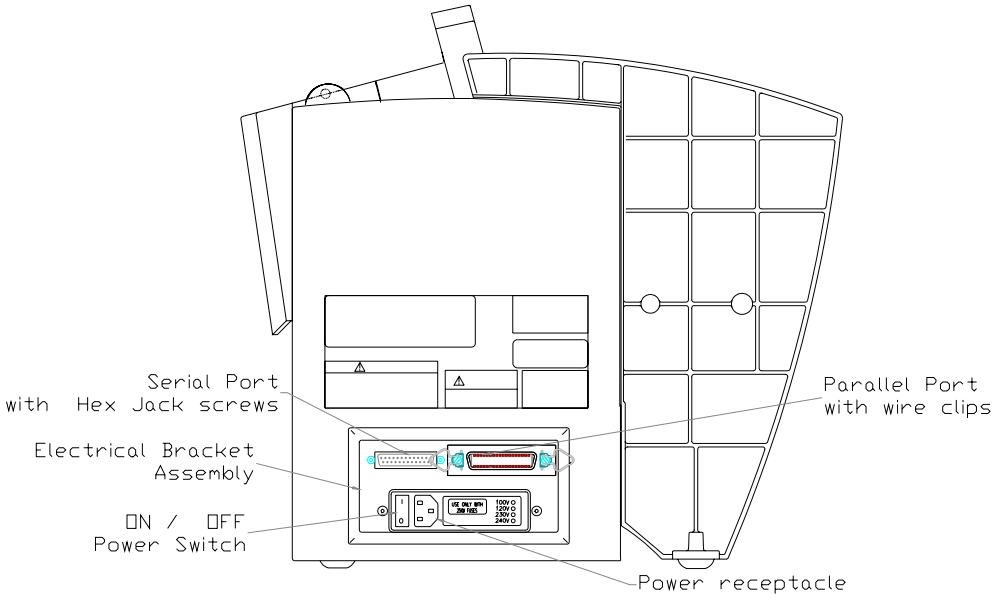
1. Align the male end of the parallel or serial cable connector. Push the cable connector in.

2. Secure the cable in place. Use the two wire clips located Parallel connector to snap into the tabs on the connector. Use the thumb screws on the serial connector to screw into the hex jack screws on the Electrical Bracket.

Note: AB switches are not recommended for operation with this printer.

3. Align the other end of the cable to the connector on the computer and push into the port.

4. Secure the cable in place. Use the thumb screws on the connector to screw into the hex jack screws on the computer.



Connecting the Power Cord

The power cord receptacle is located on the Electrical Bracket Assembly along with the ON/OFF power switch. Connect the power cord to a grounded outlet.

1. Push the female end of the power cord into the power receptacle.

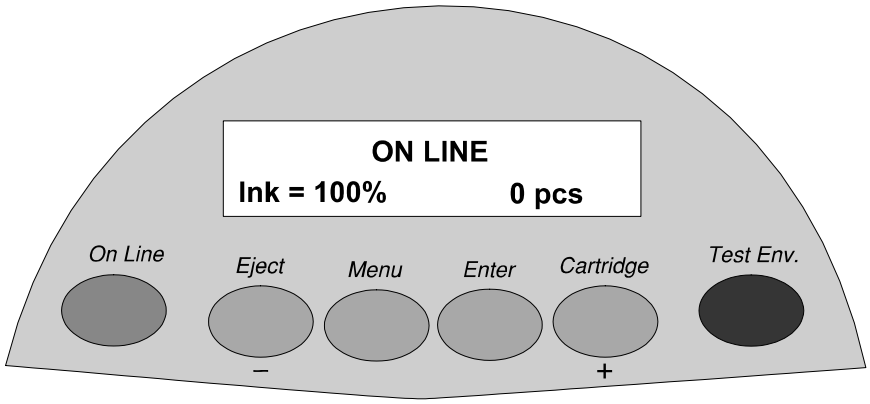
2. Plug the other end into a grounded power outlet.

Power On

The power cord is plugged in, the printer is connected to the computer. Now you can turn the power on.

- Press on the printers' ON/OFF power switch. The switch is located on the rear of the printer next to the line cord receptacle. Press on the symbol "I" (ON) position. The printer LCD menu will display PRINTER INITIALIZING and then automatically go ON LINE.

The Address Printer uses an Ink Jet Cartridge for printing.



Installing an Ink Jet Cartridge

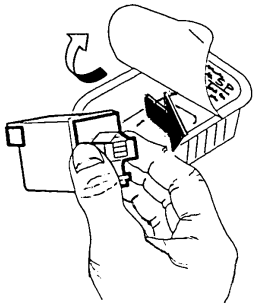
You must install the Ink Jet Cartridge before you use the machine. To install the cartridge do the following:

- Verify the LCD display message on the top line of the display is either OFF LINE or ON LINE.
- Open the front cover.
- On the top Control Panel, depress the **Cartridge** button (**[+]** plus button) and the carriage will travel to the center position and stop. **DO NOT MOVE THE CARRIAGE BY HAND!!** Damage may occur to the carriage.

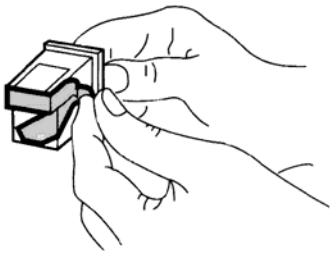
Caution!

The ink in the print cartridge may be harmful if swallowed. Keep new and used cartridges out of reach of children. Discard empty print cartridges in the proper manner.

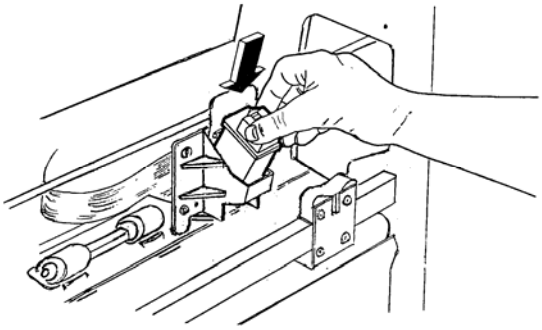
1. Remove Cartridge from the shipping container by peeling top cover off. Be careful not to touch the copper ribbon.



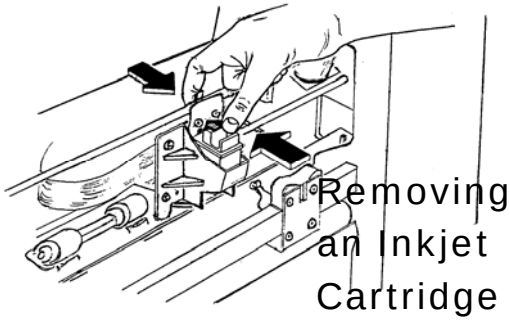
2. Gently remove both pieces of tape covering the ink nozzles on the print cartridge. Be careful not to touch the copper nozzles.



3. Gently insert cartridge down at approximately a 45 degree angle into the cradle with the blue arrow on the cartridge top pointing toward the input bin.



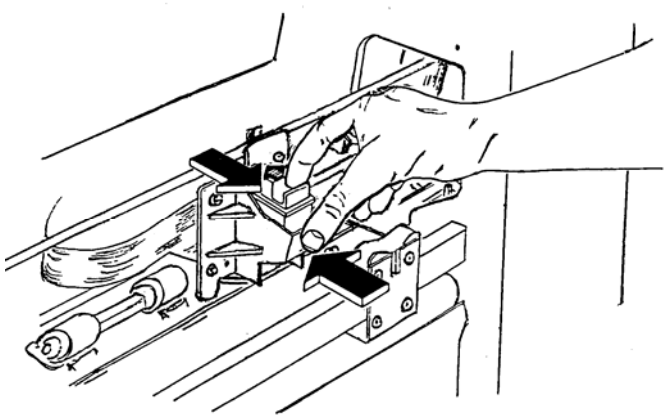
4. Place forefinger on cradle tab and thumb on top of ink cartridge and gently squeeze together until the cartridge snaps into place.

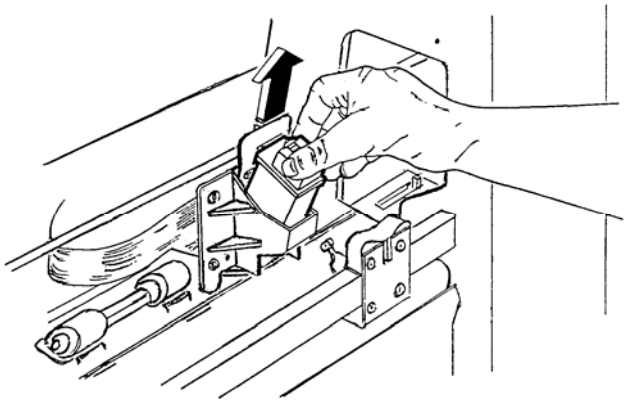


Removing an Inkjet Cartridge

1. Grasp the blue cartridge top while placing your thumb on the cartridge cradle. Pull the cartridge top toward you until the cartridge "pops" loose.

2. Lift the print cartridge out of the cradle.





Preparing the Media

Recheck that all the necessary components of the printer are installed.

- Is the Wire Form Assembly installed?
- Is the Sliding Fence installed?
- Is the printer plugged into a power outlet?
- Does the printer have an Ink Jet Cartridge installed?
- Is the printer connected to the computer?

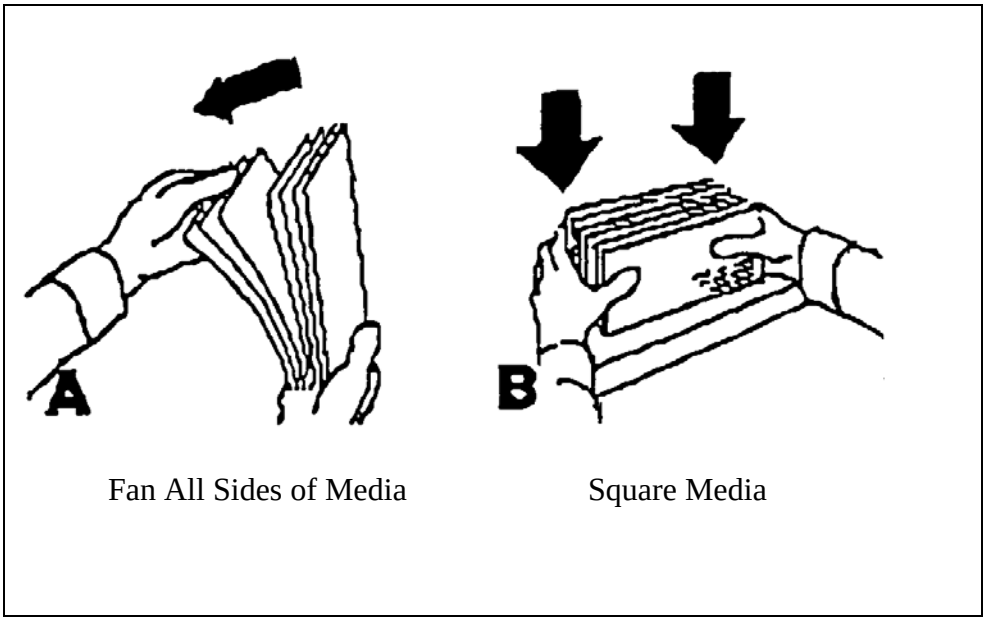
Now that all the parts of the printer are installed the printer needs to be adjusted to work with the media. To avoid problems of misfeeding and jams the media must also be made ready for the printer.

Use the following steps to make the media ready for printing:

1. Take a manageable pile of media and while holding them (as shown in the following illustration as reference A), "fan" all sides of the media to make sure that each piece of media is free from one another.

2. Square the pile against the table top, assuring a square pile on all sides. (Reference B in following illustration) This will also allow media to settle toward the bottom of a stuffed envelope and will increase the feeding capabilities of the printer.

Note: Maximum thickness is 1/16" (1.587mm) for the 5K-LE.



Fan All Sides of Media Square Media

Media Types

The printer is designed to feed and print on a variety of media with various finishes and coatings. The sharpness of the print quality will vary with different media types, depending on how absorbent the media is, as well as other qualities. The best results can be achieved using white wove bonded stock. The printing quality will be less sharp on tyvek, recycled and glossy media.
The types of media the printer is able to use is:

- Envelopes: should be stacked to feed with the bottom edge first (non flap edge).
- Booklets: should be stacked with the sealed edge leading or stacked with the sealed edge placed parallel to the rear wall of the Rear Support Plate Assembly.
- Catalogs: should be stacked with the sealed edge leading or stacked with the sealed edge placed parallel to the rear wall of the Rear Support Plate Assembly.
- Postcards: must be 3.5” x 5” or larger.
- Self Mailers: may be folded in half or “C” or “Z”. The media must be tabbed and not exceed the maximum allowable thickness.
- Paper: may consist of 16 to 80lb of uncoated to coated stock. The maximum width and height is specified in Appendix G.

All folded material and catalogs must be tabbed as per postal regulations.

The paper types that can be used are:

- White wove
- Bond Paper
- Recycled Paper
- Coated Paper
- Card Stock
- Brown Kraft
- Manila

Setting the Proper Feed Gap

To start a print job the feed gap should be set for each type of media used in the printer. The feed gap is the spacing between the feed rollers and the separators. Set the feed gap with a piece media by following these procedures:

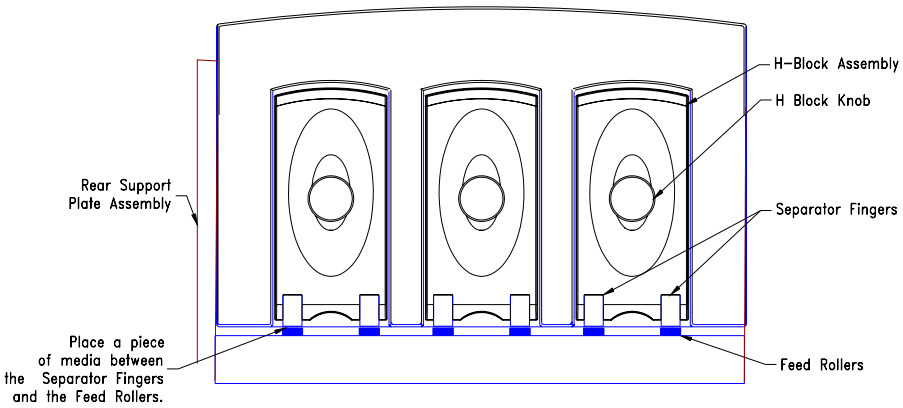
1. Loosen the H Block Knob on the three H-Block Assemblies.

2. Raise the three H-Block Assemblies up. Tighten the H Block Knobs to secure H-Block Assemblies in place.

3. Take a piece of the media and place between the Feed Rollers and the H-Block Assemblies.

4. Square the edge of the media against the wall of the Rear Support Plate Assembly.

Hint: set a smaller gap between the separators and feed roller, by using standard copy paper when using post cards.


H–Block Assembly
H Block Knob
Rear Support Plate Assembly
Separator Fingers
Place a piece of media between the Separator Fingers and the Feed Rollers.
Feed Rollers

5. Loosen the H Block Knobs and allow the H-Block Assemblies to drop on top of the media. Keep the H-Block Assembles up that won't contact the media. When just one of the separator fingers is in contact with the media use another piece beneath the other separator finger and the Feed Roller to set the feed gap.

6. Tighten H Block Knobs to secure H-Block Assemblies in this position.

When the feed gap is not set correctly the printer will have feeding problems. When the gap is too wide double feeding (feeding two or more pieces at a time) will occur. If the gap is to small the media will jam beneath the separators. If you

followed the preceding steps and are experiencing feeding problem using post cards or stuffed media try the following:

Post cards (.003" [0.0762 mm] thickness) - set a smaller gap between the H-Block Assemblies and the Feed Rollers. Try using a sheet of copy paper to set the feed gap.

Stuffed Media - set a larger gap between the separator blocks and the feed roller. Try adding two or three, number ten (# 10) envelopes, on top of the media before setting the separators.

Setup with #10 Envelopes

Perform the preceding steps for setting the feed gap using #10 envelopes. Notice that only two of the H-Block Assemblies completely rest on the envelope. The third H-Block has one separator finger on the envelope and one on the feed roller.

1. Take Sliding Fence off and remove out of the way.
2. Fit a second envelope between the other half of the H-Block Assembly and the Feed Roller.
3. Loosen the H Block Knob to let the H-Block Assembly fall freely onto the envelope. Verify envelopes are between all the Separators Fingers and the Feed Rollers.
4. Lock in place by tightening the H Block Knob.
5. The Input Bin can now be filled with #10 envelopes for printing. The stack of envelopes should be "shingled" or layered with the piece on top partially covering the piece below it like shingles on a roof. Load into the input bin with flap away from the feed roller and facing downward. Start with just a few envelopes to start the stack and get the angled contour of the bin area, then add several more pieces. Then add the remainder of the stack.

Wire Form Adjustments

The Wire Form assembly supports the media stacked in the input bin area and redistributes the weight of the media to assist in the feeding of the media. The Wire Form assembly has three basic adjustments.

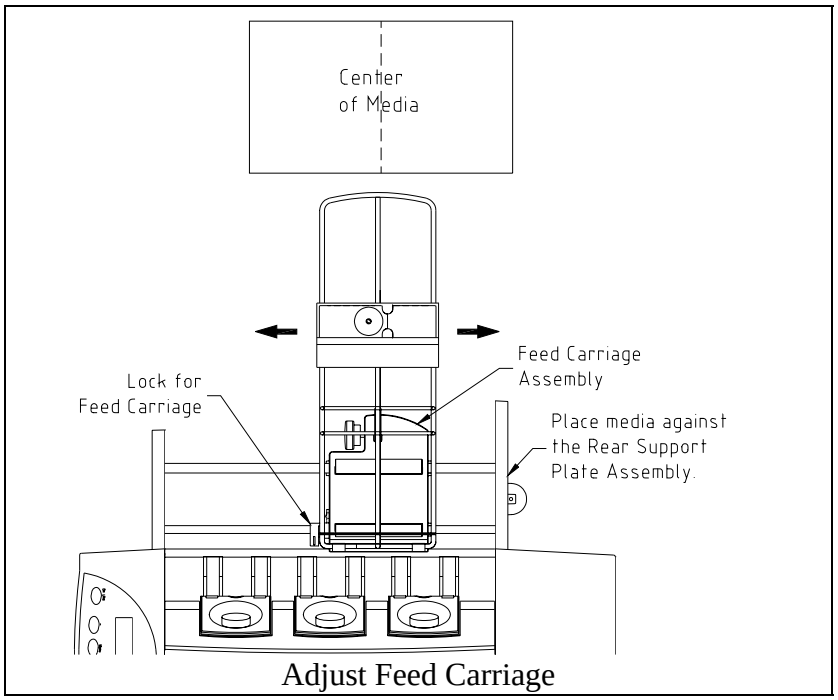
- ***Wire Form Center Adjustment*** to eliminate skewing of the media and print.
- ***Wire Form Height Adjustment*** to allow the printer to feed media of varying density. **Example**: Rigid media is set low, light weight media is set high.
- ***Wire Form Ramp Adjustment*** improves the feeding of media by distributing the weight of the media stack onto the feed roller.

Wire Form Center Adjustment

The Feed Carriage Assembly needs to be adjusted with the Wire Form Assembly.

1. Place a piece of the media in the bin area against the Rear Support Plate Assembly.

2. Unlock Feed Carriage assembly by pushing locking lever down



Adjust Feed Carriage

3. Slide Feed Carriage Assembly to the center of the media.

4. Pull lever up to lock Feed Carriage Assembly in place.

Wire Form Height Adjustment

The Wire Form Assembly helps the printer feed the media. Use the following suggestions as a guide for setting the height of the Wire Form Assembly. When the media is:

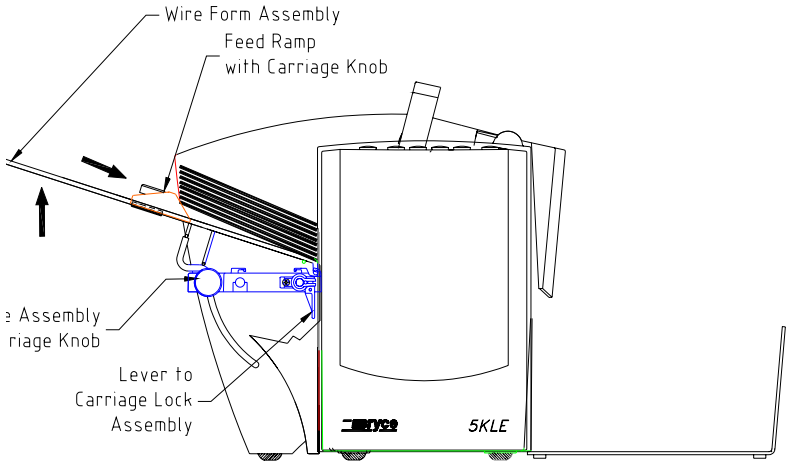
- ***Heavy media-*** set low
- ***Light media*** - set high.
- ***Rigid media*** - set low

To adjust the Wire Form Assembly:

1. Loosen the Carriage Knob on the Feed Carriage Assembly.

2. Move the Wire Form Assembly accordingly.

3. Tighten the Carriage Knob to secure the Wire Form Assembly in place.



Adjust Feed Ramp and Wire Form Assembly

Setting the Feed Ramp

Adjust the Feed Ramp Assembly beneath the rear edge of the media by:

1. Loosen the Knob on the Feed Ramp Assembly.

2. Lower Feed Ramp beneath the back edge of the media. Place ramp where the media is halfway up the angled front edge.

3. Tighten Knob to lock Feed Ramp into position.

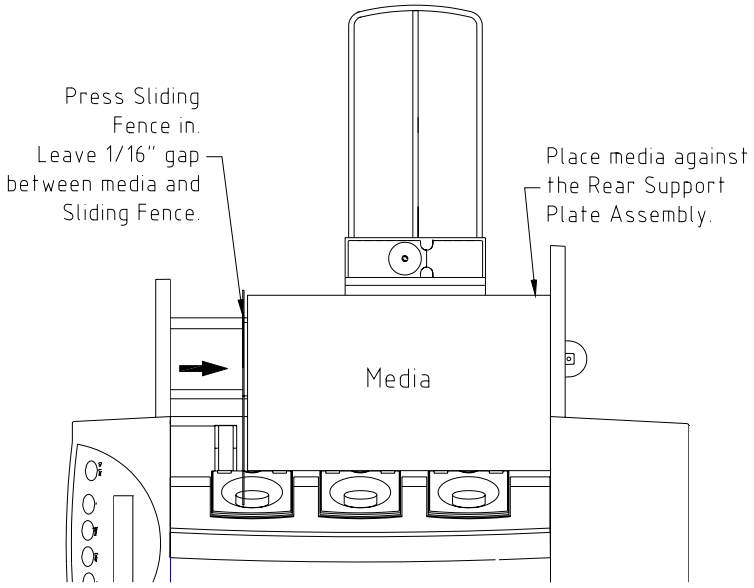
Setting the Sliding Fence

Recheck your setup and adjustments:

- Is the feed gap set?
- Is the Wire Form in the center of the media?
- Is the Wire Form at a good height?
- Is the Feed Ramp beneath the edge of the media?

Position the Sliding Fence before stacking the bin area with media. The fence has to be close enough to the media to keep it from going in at an angle and loose enough for the media to drop down to the Feed Rollers. To properly position the fence:

1. Place a handful of the prepared media in the input bin


Press Sliding Fence in. Leave 1/16" gap between media and Sliding Fence.
Place media against the Rear Support Plate Assembly.
Media

area.

2. Square the stack against the wall of the Rear Support Plate Assembly and the H-Block Assemblies.

3. Push the Sliding Fence in near the media. Leave a gap of 1/16 of a inch [1.587 mm] or the thickness of one or two #10 envelopes. This size of gap places the fence close enough to prevent pieces from twisting and turning as they enter the printer, and the fence won't be to close to the media to trap and restrain the pieces between the fence and the wall of the Rear Support Plate Assembly. This would hinder the media from being fed into the printer.

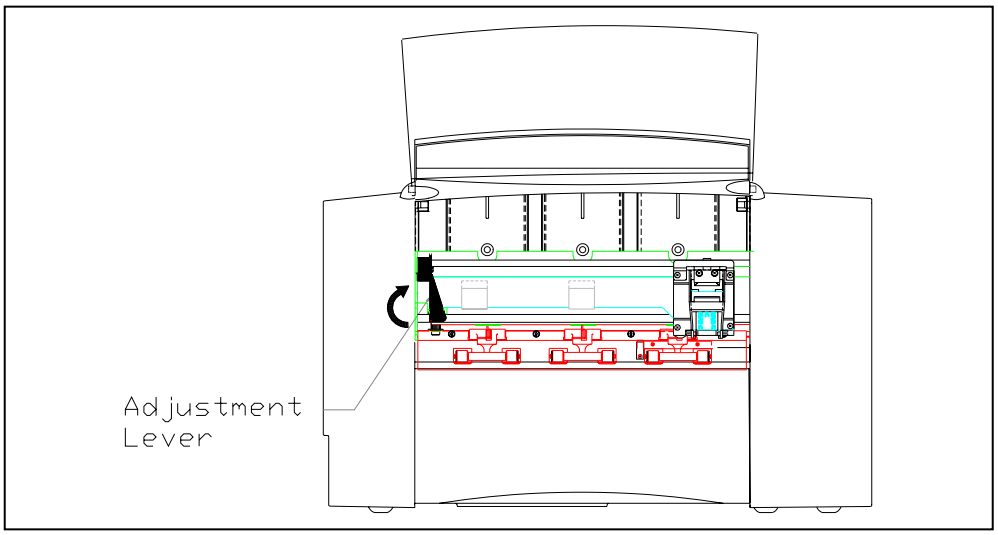
4. Put the media into the bin. Start with a few pieces to get the proper contour. The media stack should be "shingled" when loaded into the input bin with flap away from the feed roller and facing downward. Add several more pieces. Keep adding to the stack until the bin is full of media.

Fine Tuning the Adjustment Lever

Different sizes and types of media call for unique settings for the Print Head Holder Assembly. To accommodate different sizes of media the Adjustment Lever increases or decreases the distance of the ink jet cartridge from the media. This gives the printer the ability to adapt to different types of media. Proper use of the lever results in clean crisp print. Use the following steps as a general guideline to get the best quality possible with most types of media:

1. Load the media that is going to be used for a job.

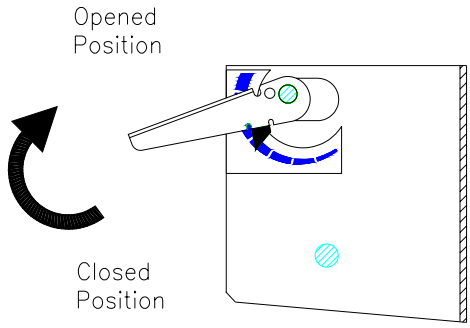
2. Raise the Adjustment Lever to the fully opened position. Reference the Figure below.



3. Press the **[Test Env.]** button down. The printer feeds and prints a test piece.

4. If the print is indistinct, hazy or too light, lower the lever. Keep lowering the lever and pressing the **[Test Env.]** button until the best print quality is found.

Note: If the print smudges the ink cartridge is touching the media. Raise up the Adjustment Lever until it stops.

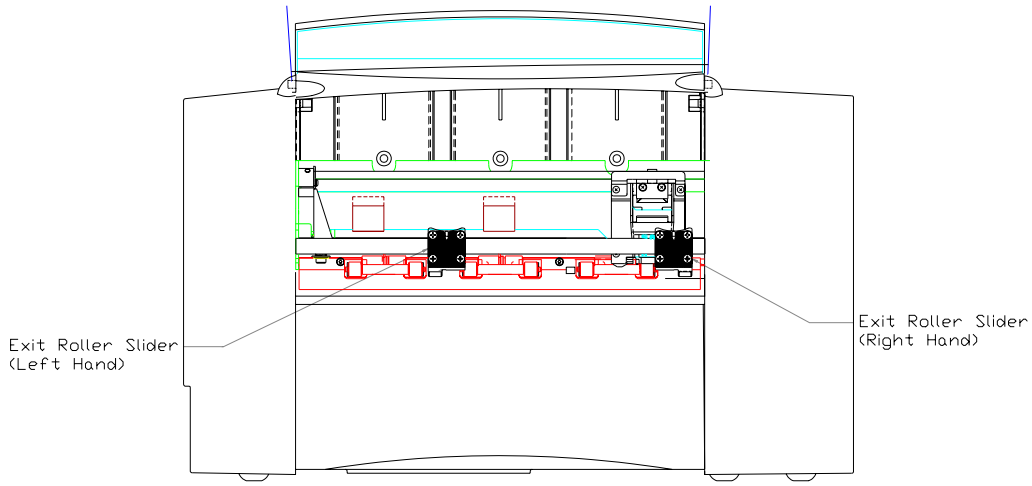


Adjustment of the Left Hand and Right Hand Slider Assembly

Push the Slider Assembly left or right to move the slider to a new position on the shaft. Place the Sliders to 1/4 of an inch (6.35 mm) from the left and right edges of the media. It is important to check that the Sliders do not contact any printed information on the media. If the rollers do roll over any printed areas they will act as a brush with paint and smear the print. Move the rollers in more or out more toward the nearest clear zone (non printing area of the media).

Output Stack Height

The Paper Catch Assembly will stack up to five inches (12.7 cm) of media before it is necessary to remove the stack from the paper catch assembly. If the paper catch is not emptied

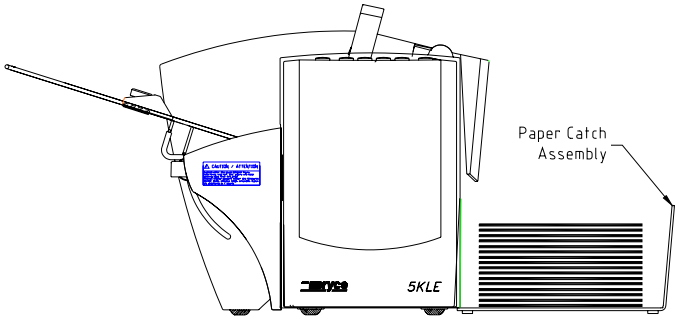


regularly then there is the potential for the stack to be out of sequence, particularly when the printer is printing toward the top of the media.

Factors that Affect the Printers Performance

The 5K-LE Printer is designed to give the best possible performance, but the speed can be affected by these factors.

1. The amount of memory available in the computer.
2. Whether the printer is running as a network printer



or with a print spooler.

3. Pre-glued flaps on the media
4. Glossy or heavily waxed media.
5. Setting up margins, or sending non printable characters or blank spaces in the records.
6. Sending blank lines in each record.

Tips for Running the Job

1. Use a computer dedicated to the printer only.
2. Tab magazines or stapled sheets.
3. Eliminate blank spaces and lines in the records. Extra characters take extra time to process.
4. Records with differing numbers of lines should be followed with a page break or form feed.
5. Repetitive information that is printed on every piece should be sent as a macro using PCL code.

Preventative Maintenance for the Printer

The 5K-LE Printer is designed for trouble free service with a minimal amount of care. Periodic cleaning of the Feed Rollers, Right Hand Slider, Left Hand Slider and Lower Guide Assembly will be necessary.

Cleaning the Feed Rollers

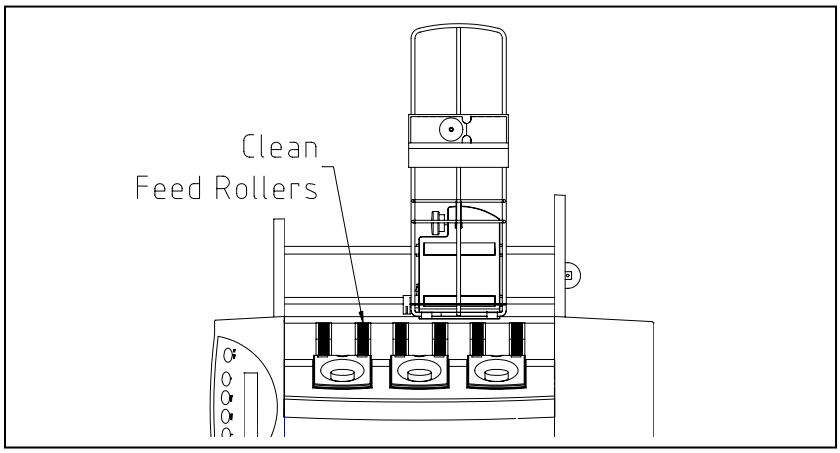
CAUTION!!

CLEAN PRINT CARTRIDGE, INK SURFACES AND COVERS WITH PLAIN WATER.

ALL RUBBER ROLLERS CAN BE CLEANED WITH ISOPROPYL, DENATURED & RUBBING ALCOHOL OR WATER ONLY.

USING ANY OTHER CLEANING SOLVENTS WILL VOID ALL WARRANTIES.
Keep cleaning solvents with petroleum based products from rubber or plastic parts.
Anything but ALCOHOL or WATER will cause premature breakdown of rubber compound.

Lint and paper dust tends to build up on the feed rollers with use. When the rollers are glazed or have a yellowish residue, clean the rollers. Use alcohol to dampen a soft cotton cloth to clean all rubber rollers.



Cleaning the Inkjet Cartridge

If the print quality is unacceptable select the Purge Print Head function from the Setup Menu (see section Print Head Purge). If problems still persist then do the following:

- Remove the Print Cartridge (See chapter 4). Clean the nozzles with a soft cotton cloth. Use a dry cloth or one moistened with water to clean the ink jet cartridge.
- Remove problem print cartridge and install a new print cartridge.

Note: The printer performs a self cleaning cycle before printing and periodically while printing to keep the nozzles clear of dry ink and debris.

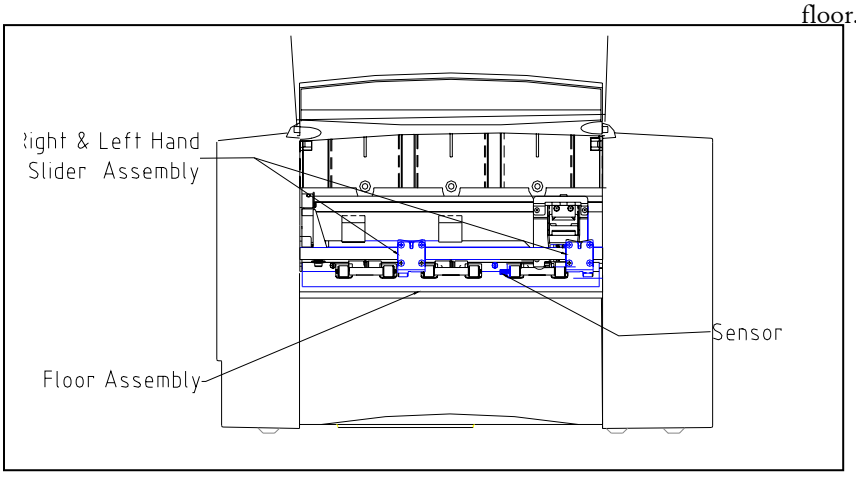
Cleaning the Sensor Assembly

With use, a film and/or dust builds up on the eye of the sensor causing misfeeds of media. Periodically use compressed air to blow dust from the sensors. For caked on dust use a Q-tip to remove the dust from the eye of the sensor.

Cleaning the Right and Left Hand Slider Rollers

When the Right and Left Hand Slider Rollers are adjusted over the area where the address is printed the ink will get transferred from the media onto the rollers and the surface of the sliders. Use water to dampen a soft cloth to remove the ink from the rollers and sliders.

Note: The lower half of the Sensor is seen through the hole in the floor.

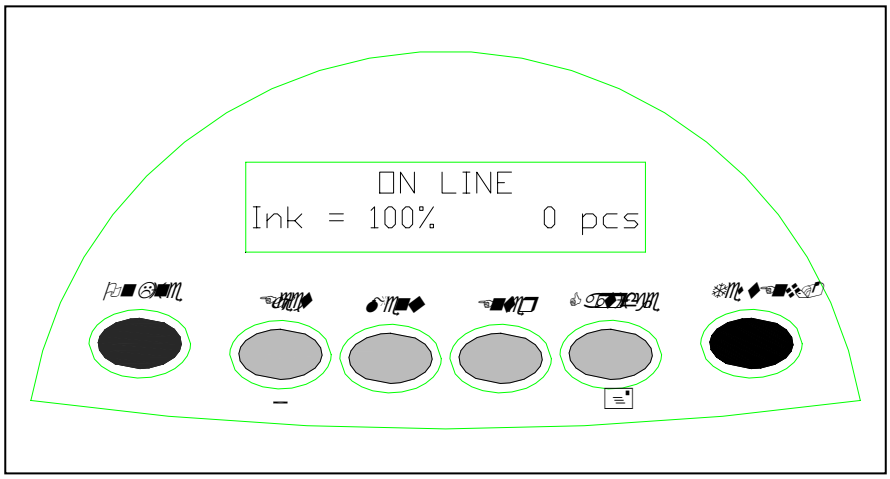


Cleaning the Floor and Covers

Ink will get sprayed on the Floor Assembly from all the purging, setting up and printing records, etc. Eventually an enough ink will accumulate on top of the Floor Assembly to give the floor a black glossy sheen and the back of the media will start to pick up some of the ink as well. Use water to dampen a soft cotton cloth to remove the ink from the Floor Assembly.

Front Panel Controls and LCD Display

Use the controls on the Front Panel Assembly, consisting of six control buttons and an LCD display, to set up the Addressing Printer for proper operation with the computer system.

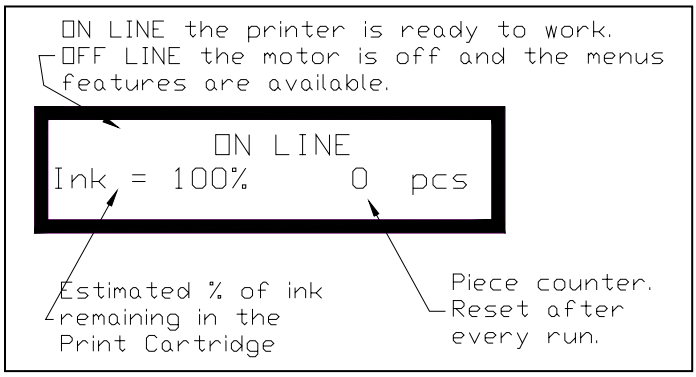


The control button definitions are:

Button	Function
[ON LINE]	Toggles the printer either On Line or Off Line. Begins printing accepted address data (records) from the computer or data in the buffer. Exits the menus with out changing menu settings. Allows the printer to resume printing after an error occurs.
[TEST ENV.]	Prints a internal test message. Hold down for continuous printing of the test message. Prints menu settings and internal alignment patterns for the printer.
[MENU]	Press the [**Menu**] button to access the Main Menu. Press and hold the [**Menu**] button for two (2) seconds to access the Setup Menu. Depress the [**Menu**] and **[-]** buttons to access the Service Menu. Note: The printer must feed a piece of media or an error will occur instead of entering the menu. Exit the control panel menus. First press [**Enter**] to save a menu setting.

[ENTER]	Selects a menu option displayed on the control panel. Saves a new menu setting. An asterisk (*) will appear to the right of the value to indicate the new value has been entered.
[+] / [-] **or** **[CARTRIDGE] / [EJECT]**	Scroll up **[+]** and down **[-]** through the menu options. Enters a YES **[+]** or NO **[-]** for particular menu options. The **[Cartridge]** and **[Eject]** buttons will function when the printer is either OFF LINE or ON LINE. Press the **[Cartridge]** button and the printer will move the Print Head Holder over to the center position for access to the Print Head Holder to install and remove a print cartridge. Press the YES **[+]** or NO **[-]** button to answer the display question, then the Print Head Holder will return back to the park position. Press the **[Eject]** button to feed a piece of media through the machine or eject a piece of media from under the Exit Sliders.

What does the display show?


ON LINE the printer is ready to work.
OFF LINE the motor is off and the menus features are available.
ON LINE
Ink = 100% 0 pcs
Estimated % of ink remaining in the Print Cartridge
Piece counter. Reset after every run.

Conventions used in the Printer Menu System section.

Bold with brackets is used for the **[Menu], [On Line], [Enter], [Test Env.], [Eject], [+] Plus, [-] Minus** buttons when they must be pressed to program or operate the printer.

Special fonts are used to highlight words that appear on the LCD display, and menu options: i.e. `MAIN MENU`, `SETUP MENU` or `SERVICE MENU`. *Italics* are used to define the function of the printer menu option.

Main Menu

Use this menu to choose the format and style of address printed and for information to assist in production. Selected menu options from a sub-menu will appear first in the list of options.

Note: The printer driver overrides most control panel settings in the printer. Some of the control panel settings are also configured in the printer driver.

1. ADDRESS LAYOUT

Use this option to change the page layout for your mail piece.

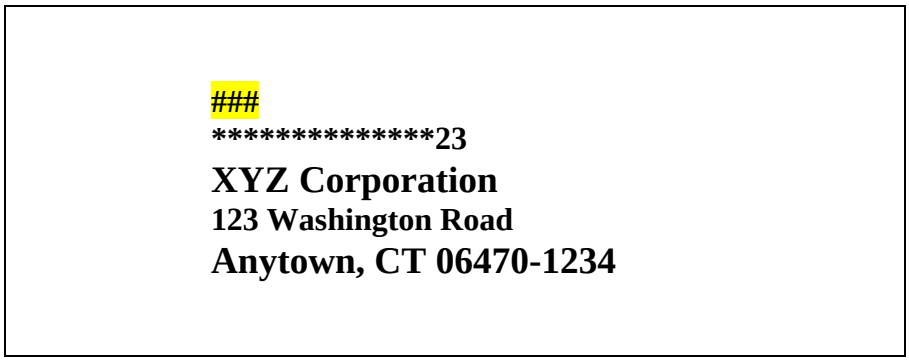
Menu Items	Selections	Explanation
A. Distance To Right	`0.00` to `9.40`	This menu item allows you to change the position of the record on the media by moving the record away from the right edge of the media. Distance to Right is the distance measured from the Right edge of the media to the first printable character.
B. Distance To Bottom	`0.00` to `15.00`	This menu item allows you to change the position of the record. The Distance To Bottom is the distance between the bottom edge of the media and the base of the first line of the address. **Note**: A Lower Right Barcode will not print unless a bottom margin of 5/8 (1.58 cm) inches is retained.

C. Line Spacing	`Automatic`
	`3 lines / inch`
	`4 lines / inch`
	`6 lines / inch`
	`8 lines / inch`
		This sets the distance between lines of text. It is measured as the number of lines per inch of text. Note: Whenever changing the point size of the font, use the automatic line spacing option. The printer will automatically select the correct setting for the increased or decreased font size of the characters being printed.

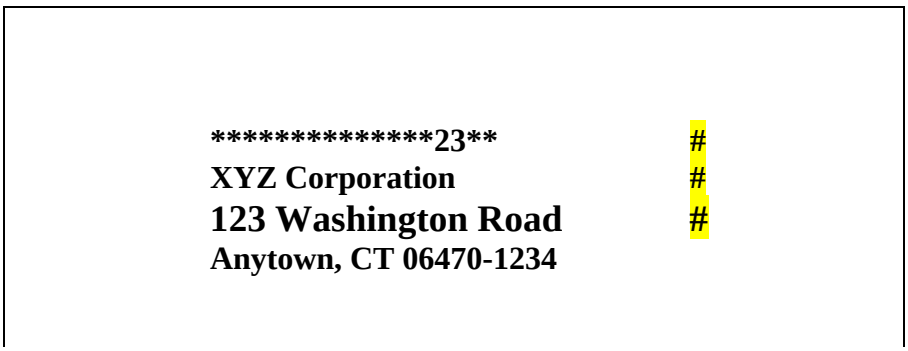
D. Orientation	`Normal` or `Invert`	This item changes the direction that the print appears on the media. *Normal* prints upright when viewed from the front of the Head Print Assemblies. The Lower Right Barcode will only print in Normal orientation. *Invert* reverses the print 180 degrees. Setting the printer to Invert does change some of the menu items.
E. Orientation Cntrl. (Control)	`Automatic` or `Manual`	This option allows the printer to ignore the orientation commands sent by the computer. ***Automatic*** When the Orientation Control is set to *Automatic* the printer acknowledges the orientation commands sent from the computer.

Menu Items	Selections	Explanation
		Manual Setting the Orientation to *Manual* notifies the printer to use the menu settings for orientation.
A. Distance To Left	0.00 to 9.40	This menu item only appears when the Orientation is set to Invert. Distance From Right is identical to Distance From Left except the distance is measured from the Right edge of the media.
B. Distance To Bottom	0.00 to 15.00	This menu item only appears when the Orientation is set to Invert. The Distance from Bottom is the distance between the bottom edge of the media and the base of the first line of the address.

Example of using a series of 3 '#' characters in the Horizontal Break Marker setting to pause the printer.



Example of using a series of 3 '#' characters in the Vertical Break Marker setting to pause the printer.



2. PRINT QUALITY

This option changes the speed of the printer and the density of the characters printed on the media. These menu items are available in the printer driver and override the control panel settings.

Menu Items	Explanation
Executive	This is the darkest of the four print qualities, the slowest print speed and uses the most ink.
Letter	Letter quality is used for documents that require a finished, polished appearance. Use the following steps to change the quality of print to dark gray.
Draft	Draft quality prints documents the fastest and saves ink. This option offers the highest print speed and prints the lightest of the three print qualities. Use the following steps to change the quality of print to light gray.

3. FONT

Use this option to alter the fonts characteristics: typeface, point size, spacing, stroke weight, and style. The printer driver downloads Windows True Type fonts and overrides internal fonts selected through the control panel.

Menu Items	Selections	Explanation
A. Name **Note**: When ***A. NAME*** is shown on the display as a Menu option, press the [**Test Env**.] button and a complete listing of the available fonts will be printed out in their typeface.	Courier San Serif Roman OCR A OCR B Names of fonts that are recognized from the PCMCIA Card slot will be added to the end of the list of selections.	Select the style of font to print the records with. Many optional fonts are available by installing an optional font card. The Font card must be installed (Font label facing the front of the printer). Turn the printer power off for 10 seconds or more. Insert the font card, then power on the printer to use the external font card. **Note:** Press the [**Test Env.]** button when a font name is displayed on the LCD. A list of the character set is printed in the fonts typeface. Use these same steps to print a character set from a font card.
B. Size	4 to 30	This item changes the size of the internal font.
C. Width	Condensed(50%) Thin (75%) Normal (100%)	This item to changes the width of spaces between characters and the width of characters. ***Normal (100%)*** print width is the standard width of

Menu Items	Selections	Explanation
	`Wide (125%)` `Expanded(150%)`	characters and spaces between characters. *Thin* (75%) and *Condensed* (50%) will decrease the spacing between characters and decrease the width of characters. *Wide* (125%) and *Expanded* (150%) increase the width of characters and spaces.
D. Bold	`On` or `Off`	This item increases the character stroke weight (thickness of print).
E. Italic	`On` or `Off`	This item refers to the *oblique shape* of a character.
F. Outline	`On` or `Off`	This item prints only the outline or the edge of the fonts shape. All the records printed using Outline will appear as *`hollow text`*.

4. BARCODE

Use this option to print a USPS (US Postal Service Postnet Barcode) barcode on the piece of media and to place it above or below the record. For information on the requirements to print a UPSP barcode, see Appendix G.

Menu Items	Selections	Explanation

A. Location	`Lower Right Corner`
	`Above Address`
	`Below Address`
	`Off`
		Select the US Postal Service Postnet Barcode options from the following selections:
		LOWER RIGHT CORNER: The barcode is always printed in the lower right corner of the media. **Note**: This option is disabled when the selected Orientation is Invert.
		ABOVE ADDRESS: Prints the barcode in the address block above the first line of the address on the media.
		BELOW ADDRESS: Prints the barcode below the last line of the address in the address block on the media.
		OFF : Stops the printing of a Delivery Point Barcode (DPBC) on the media.
		Note: This option has the printer generate the USPS barcode.

B. 5 Digit On/Off	`ON` or `OFF`	This item prints a 5 Digit barcode for a five digit zip code. **Note**: Only a 5 Digit barcode is printed for a five digit zip code when enabled. A Delivery Point Bar Code cannot be generated from a five digit zip

		code.

5. ADDRESS RECOVERY

When something goes wrong while printing use this option to direct the printer to re-print up to 20 of the last records or to clear the printers memory of all records.

Menu Items	Selections	Explanation
A. Get Addresses	NONE TO RECOVER or 00 to 20 Press the [**Enter]** button to select the record and advance the display to the next to last record.	This option retrieves up to 20 records from the data buffer. The display will say 00: and show the first 16 characters of the last address printed. If *NONE TO RECOVER* is first displayed then the data buffer is empty.
B. Clear Memory	YES or NO	This option removes any data left in the data buffer. The alternative way to clear data from the Data Buffer is to press the **[+]** plus and **[–]** minus buttons simultaneously.

6. CLEAR COUNTER

Use this option to clear the piece (batch) counter back to zero.

Menu Items	Selections	Explanation
	YES or NO	This option resets the counter to zero on the display. Select No to leave the current number of pieces printed (*pcs*) on the LCD display.

7. JOB SETTINGS

The printer has the ability to save or load up to eight different menu presets in memory. This is extremely useful for a quick setup of the printer for redundant tasks.

Menu Items	Selections	Explanation
A. Load	1 to 8 Press the [**Test Env.]** button to print the menu settings associated with saved Job Settings.	This option retrieves the menu settings from a previous job.
B. Save	1 to 8	This option saves the current menu setup. The menu configuration is saved as a job number (1 through 8). The operator must keep a record of these configurations and the job number that was assigned.

SETUP MENU

The Industrial Printer has a Setup Menu that lets you configure the Industrial Printer so it will function correctly with the computer and computer software. Use the Setup Menu to also display the menus in another language besides English. Hold down the [**Menu]** button for two (2) seconds until SETUP MENU is displayed on the first line of the LCD. Select the desired menu option when it appears on the second line of the LCD.

1. HEAVY MEDIA MODE

Enable this option for the printer when the media stack exceeds 10 pounds (4.54 kg).

Menu Items	Selections	Explanation
	On or Off	Use this option to increase the force used to feed the media. **Note**: Whenever the transport motor torque is increased the media throughput will decrease approximately 10%.

2. TEST PRINT HEAD

Before using this option, verify the media is loaded in the input bin so a test pattern can be printed. A diagonal line will print across the media with a small solid box. If a gap is present within the diagonal line, one or more nozzles of the ink jet cartridge maybe blocked and need to be cleaned. Clean the ink jet cartridge by performing a purge (see menu option below). If the purge does not clear the nozzles, then remove the Ink Jet Cartridge. See chapter 3 on how to remove and install an ink jet cartridge. Clean the nozzles with a dry soft cotton cloth or one moistened with water.

Menu Items	Selections	Explanation
	Print a test pattern? Yes or No	Press the + (YES) button to print the test pattern or press the - (NO) button to disable this option.

3. PURGE PRINT HEAD

This menu item is to clean the ink jet cartridge nozzles.

Menu Items	Selections	Explanation
	Yes or No	The purge process fires all the ink jet nozzles into a sled to dislodge and clear any dried ink on the print nozzles. Often this will return the print quality to a normal level.

4. LINES PER ADDRESS

Set the number of lines of text the record will consist of when printing onto the media.

Menu Items	Selections	Explanation
	1 to 66	Set the number of lines to match the number of lines in a record that will be sent to the printer.

4. COMMUNICATIONS

Data is transmitted from the computer to the printer through the parallel port (parallel interface) or the serial port (serial interface). **Note**: The current settings of the *SERIAL* menu are shown to the right on the LCD display.

Menu Items	Selections	Explanation
A. Baud Rate	1200 Baud 2400 Baud 4800 Baud 9600 Baud 19200 Baud	Select the baud rate that matches the computers for communication over the serial port
B. Parity	Odd Even None	Use the following steps to change the serial communications Parity.
C. Word Length	7 Data Bits 8 Data Bits	Use the following steps to change the serial communications word length
D. Line Termination	CR=CR;LF=LF CR=CR+LF;LF=LF CR=CR;LF=CR+LF CR=CR+LF;LF=CR+LF	The typical software line termination is CR = CR**;** LF = LF. If your software is not typical then the Line Termination can be modified.

6. HEX DUMP MODE

Utilize this option to print the raw ASCII data (HEX Code) that is being sent to the printer.

Menu Items	Selections	Explanation
	`Off` or `On`	Prints the ASCII data being sent to the printer. The media width must be a minimum of 7 1/2" or 191 mm when running in HEX Mode. The page orientation, margins and number of lines are defined by the ***ADDRESS LAYOUT*** and ***LINES/ADDRESS***. The maximum number of usable lines is 16. **Note**: Clear the data buffer before sending data to the printer.

7. LANGUAGE

Customize the printer to match the keyboard of your printer, convert measurements from inches to millimeters and translate the menus from English. Most menus that use inches for measurements are converted to millimeters.

Menu Items	Selections	Explanation

A. Symbol Set	`ISO 6 ANSI ASCII`
	`ISO 69 FRENCH`
	`ISO 21 GERMAN`
	`ISO 4 UK`
	`ISO 60 NORW / DAN`
	`ISO 11 SWED / FIN`
	`ISO 15 ITALIAN`
	`ISO 17 SPANISH`
	`ISO 61 NORW / DAN`
	`ISO 10 SWED / FIN`
	`ISO 16 PORTUGUESE`
	`ISO 8859`
		Match the printers' International Standards Organization (ISO) symbol sets and substitution tables to the one used by the software.
		
		The printer has International Standard Organization (ISO) language symbol sets to use when printing in another language. A symbol set contains collections of the symbols and characters that make up a language. For a listing of the characters for the ISO symbol sets see Appendix D.

Menu Items	Selections	Explanation
	ROMAN 8 WINDOWS LATIN 1 PC 8	
B. Inch / Millimeter	Inch or Millimeters	This option converts the printer measurement system from inches to millimeters and vice versa.
C. Menu Language	ENGLISH GERMAN FRENCH ITALIAN SPANISH DUTCH POLISH	This option will convert the Main Menu and Setup Menu to their translations in the listed languages.

8. ENV. (ENVELOPE) FEED DELAY

This option may be required to extend drying time for the ink when printing on very glossy media. This option reduces the overall throughput by increasing the time before the next piece is printed. Use the following steps to change the time between printing records.

Menu Items	Selections	Explanation
	00 to 30 Seconds	Increase or decrease the amount of time before the next piece is drawn from the input bin.

9. ENV. (ENVELOPE) AUTO EJECT

Use this option to automatically eject the last envelope in your file. Use the following steps to eject a blank piece of media between batch jobs.

Menu Items	Selections	Explanation
	On or Off	When this option is enabled a blank envelope will be ejected between batch jobs.

10. ROM REVISION#

This option displays the Firmware Revision installed in the printer and the total number of accumulated print cycles (maintenance count).

Menu Items	Selections	Explanation
	Press the [**Test**] button when ROM REV. is displayed on the LCD. A list of the Main Menu and Setup Menu settings is printed on two pieces of media.	The LCD display will give a momentary view of the ROM Revision and the Maintenance count.

SERVICE MENU

Use this menu for adjusting the print, checking the transport motor, the shuttle motor, the sensors and testing the display for proper functionality and to perform a corrective alignment for the Lower Right Barcode and addresses.

The menu options that are preceded with a star or Asterisk (*) are the printers' current settings.

Press the [**Menu]** button and the **[-]** Minus button simultaneously until the SERVICE MENU is displayed on the first line of the LCD. Select the desired menu option when it appears on the second line of the LCD.

1. LEFT JUSTIFY

The following steps are for synchronizing the left edge or left justification of the lines of print.

Selections	Explanation
`0` to `9` Press the [**Test Env.]** button to print out a Test Pattern. Check the Test Pattern to determine which Print Cartridges are in need of Vertical Synchronization.	Use this option when the left edge of the address needs left justification.

The following is an example of how to adjust print so each lines starts in the same place.

`Example:`

On the right is an example of a three (3) line address of A's. Where the left edge of line 1 did not align with line 2 which did not align with line 3.

```
Example:  AAAA
            AAAA
          AAAA
```

Print out an adjust print Test Pattern by pressing the **[Test Env.]** button while in the *Left Justify* menu. The printer will print a Test Pattern like the example to the right.

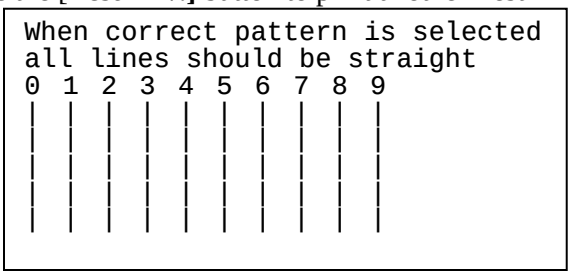
The left justify test pattern consists of four rows, each row has a series of ten vertical lines. Select the left justify test pattern where a line from each row is printed directly above the other forming a long straight vertical line. In this example the correct number is 5.

```
Select the pattern
with the vertical line
0 1 2 3 4 5 6 7 8 9
| | | | | | | | | |
| | | | | | | | | |
 | | | | | | | | | |
| | | | | | | | | |
```

Scroll through the Left Justify menu option displays *5* is on the LCD panel.

Enter the menu option to move the setting down. Enter the new value into the printers memory. An Asterisk (*) will appear in front of the new selection. Press the [**Test Env.]** button to print another Test Pattern. The Test Pattern is printed using the entered selection.

When the correct numeral is selected the center Test Pattern will have ten long vertical lines like the example to the right.



2. TEST PAPER SENSOR

Use this option to check the operation of the photo sensor.

Selections	Explanation
Press the [**Enter]** button to select this option. As soon as, the [**Enter]** button is pressed, the printer will be in the test mode.	The state of the sensor is represented on the LCD by the message ***Sensor Blocked*** or ***Sensor Unblocked***. The display will read ***Sensor Unblocked*** when the sensor path between both sensors is clear. When the sensor has media in the path, or the sensor is covered with paper dust, or the sensor is defective the display will read ***Sensor Blocked***. If the message ***Sensor Blocked*** remains after cleaning, call your Service Representative for repairs. **Note:** For further information see the Cleaning And Maintaining Section.

3. TEST SHUTTLE MOT. (MOTOR)

Use the test shuttle motor option to help determine if the motor or Print Head Holder is not functioning properly i.e. slams on the opposite side, moves inconsistently, etc.

Selections	Explanation
Press the **[+]** Plus button to move the print head holder to the right. Press the **[-]** Minus button to move the print head holder to the left. Press the [**Test Env.]** button to start the Continuous Shuttle Motor Test. Press the **[Menu]** button to stop the test.	The Test Shuttle Motor is used to check the left and right movement of the print head holder assembly. Use the continuous test to check for a repetitive left and right movement of the print head holder assembly along the length of the shaft.

4. TEST PAPER MOTOR

Use the test paper motor option to help determine if the motor or paper feeding system is not functioning properly i.e. rollers not turning, strange noises, etc.

Selections	Explanation
Press the **[+]** Plus button to move the media 1 inch (2.54 cm). Press the **[-]** minus button to move the media 1/150 of an inch (0.017 cm).	The test paper motor option tests the feeding mechanism of the printer by controlling the transport motor. The transport motor will feed the paper through the printer in small increments 1/150 inch (0.017 cm) or in large increments 1 inch (2.54 cm).

5. TEST DISPLAY

Use the test display option to help determine if the LCD display is not functioning properly i.e. missing characters, strange characters, missing segments, etc.

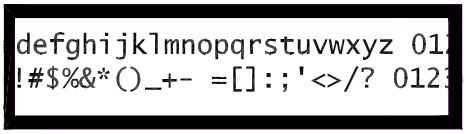
Selections	Explanation
Press the [**Enter]** button to select this option. As soon as, the [**Enter]** button is pressed, the printer will be in the test mode.	The test display will scroll characters across the top and bottom of the LCD display.

EXAMPLE:

The LCD display will scroll the lower case alphabet and numerals (0-9) across the top line, while the bottom line will scroll control characters and the numerals. The Test function will cycle twice and return to the Service Menu. See example below for LCD display sample test message.

abcdefghijklmnopqrstuvwxyz 0123456789

\->!#$%&*()_+- =[]:;'<>/? 0123456789



Example of LCD display with characters scrolling across

6. ENV. (ENVELOPE) BOTTOM EDGE

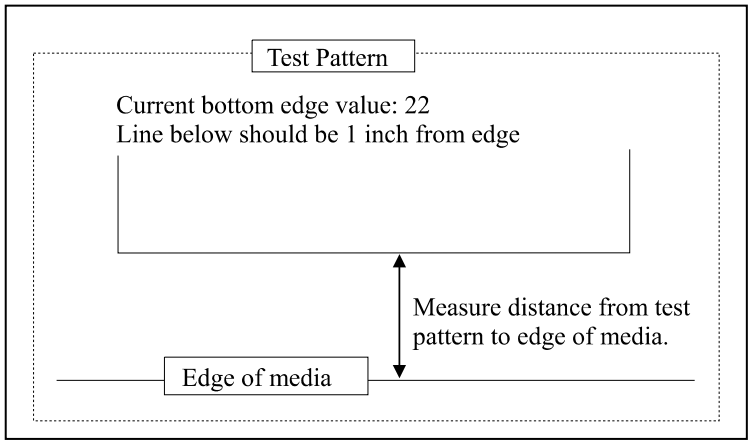
Utilize this option if the bar-code is out of specification (1/4 inch (0.635 cm) from the bottom edge of the media to the bottom edge of the Bar-code [+/- 1/16 inch or +/- 0.159 cm]).

Selections	Explanation
`0` to `50` Press the [**Test Env.]** button to print a test pattern. Press the	This option will raise or lower the print from the bottom edge of the envelope. Adjust the bar-code Bottom Edge Distance by increasing or

[**Env. Eject]** button to eject the printed test pattern from under the exit sliders.	decreasing the number from 0 to 50. Each number increase moves the print and bar-code up and each number decrease moves the print and bar-code down from the bottom of the envelope.

Measure the distance from the bottom edge of the media to the bottom edge of the Test Pattern. The pattern printed should look like the example on the right. **Note:** If the bar-code is fluctuating, then see section on adjustments for the sensor.

Press the **[Test Env.]** button again to print another envelope bottom edge test pattern. This time the test pattern should have the correct distance between the bottom edge of the media and the test pattern.


Test Pattern
Current bottom edge value: 22
Line below should be 1 inch from edge
Measure distance from test pattern to edge of media.
Edge of media

Resetting the Printer

The various selections made in all three menus: Main Menu, Setup Menu, and Service Menu, can be reset to their factory default values.

Perform the following steps to reset the printer to the Factory Default settings:

1. Depress and hold down the **[Test Env.]** button simultaneously.
2. Turn Power OFF then ON. The LCD will display "**MEMORY RESET PHASE 1**".
3. Turn Power OFF then ON. The LCD will display "**MEMORY RESET PHASE 2**".
4. Turn Power OFF then ON. The LCD will display "**MEMORY RESET PHASE 3**".
5. Again turn the power off then on. The LCD will display "**MEM RESET STARTED", "INITIALIZING"**. Wait for the program to finish. When the program is finished the LCD will display "**MEMORY RESET COMPLETE", "SHUT OFF THEN ON"**.
6. Release the **[Test Env.]** button.
7. Turn Power OFF then ON. All job settings have been set to factory defaults.

Symptoms & Solutions Chart

SYMPTOM	CAUSE	SOLUTION
Nothing happens when power is switched on	No Power to printer.	Check Power Cord. Call Service Representative.
	Fuse is blown	Call Service Representative.
LCD display shows solid line or miscellaneous characters	Problems with Eprom	Call Service Representative.
	Bad Processor Main Board	Call Service Representative.
Motor on, Feed Roller doesn't turn	Loose set screw on Motor Pulley.	Call Service Representative.
	Mechanical Clutch broken	Call Service Representative.
	Broken belt	Call Service Representative.
Printer is not Feeding Media	Feed Gap not set	Adjust separators ("H" Blocks) to media thickness.
	Media out of specification	Thickness: Minimum .003" (0.0762 mm), Maximum 1/16” (1.587 mm) No metal clasps (staples, paper clips etc.) on media.
Feed Problems (Intermittent)	Feed Ramp not used.	Adjust the media on the incline plane of the Feed Ramp. Check "H" block gap. Adjust the Wire Form to the correct height and in the center of the media.
	Paper dust present (yellow residue)?	Clean roller with denatured Alcohol.
	Sensors dirty	Blow sensors clean with air.
Feed Problems (Multi feeds)	Separators ("H" blocks) not set correctly	Adjust separators to media thickness
	Sensors dirty	Blow sensors clean with air.
	Brake not properly adjusted	Call Service Representative.

SYMPTOM	CAUSE	SOLUTION
Print Quality Problems (No print)	Ink Jet Cartridge problems	Purge ink jet cartridge. Clean cartridge with soft cotton cloth and water. Change to a known good cartridge.
	Print Head Holder broken	Call Service Representative.
Non Uniform Print Quality	Print Head Holder broken	Call Service Representative.
Ink Streaking on Media	Print Head Adjustment Lever set too low	Lift lever up to raise the Print Head Holder.
	Ink on Exit Slider Rollers	Clean Rollers with water to remove ink.
Ink Print Quality is not sharp	Print Head Adjustment Lever set too high	Lower lever down to lower the Print Head Holder
	Media unsuitable	Change to a typical white wove bonded paper
Print is Skewed (Skew Specification +/- 2 1/2 degrees of bottom edge.)	Separators ("H" blocks) not set correctly	Reset each of the H-Blocks.
	Wire Form set wrong	Set the Wire Form to the center of the media.
	Sliding Fence set wrong	Adjust the fence to within 1/16" (0.16 cm) of the media.
	Exit Slider Rollers set wrong	Adjust exit roller to within 1/4" (6.35 mm) from outside edges of media.
	Wiper Assembly bent or Idler Assembly set wrong	Replace Wiper Assembly or fix spring tension on Idler Assembly.
Print Quality Problems (Gray Print)	Ink Jet Cartridge empty	Ink supply too low, Replace Ink Jet Cartridge

SYMPTOM	CAUSE	SOLUTION
Print Quality Problems (Unwanted Bolding)	Main Menu setting of Bold is enabled	Press Test Button. A bold Standard Bryce Office Systems Address is printed. Turn Bold setting off in Main Menu.
	ESC sequence turning bold on, located before the address	Do a HEX Dump of the problem address. Examine for ESC sequence (1B) before the start of the line. Reference printer command codes to find ESC Sequence. Remove the ESC Sequence from the address.
Print Quality Problems (Addresses "walking")	Incorrect address setup	Do Hex Dump and count carriage returns and line feeds of Address Field. Match number of lines to Address Setup.
	Number of lines of address varies. No Form Feed used for address termination.	Check Line Termination CR = CR, LF = LF. Address Termination should be Form Feed
Interface problems (Garbage print)	Incorrect Software Driver	Typical dumb printer interface (TTY, Teletype, DOS text printer, Generic printer) or HP Laserjet series II, W700 or 9K-L.
	Wrong Symbol Set selected in printer.	Select correct Symbol Set from printers Setup Menu.
Interface problems (Losing characters & lines)	Bad communications Cable	Replace internal or external cable
	Bad main processor board	Call Service Representative.
	RS232 -C (Serial) over maximum length	Replace serial cable, maximum length 15 feet (457.2 cm)
	Centronic (Parallel) over maximum length	Replace parallel cable, maximum length 10 feet (304.8 cm)
	Incorrect Software Driver	Typical dumb printer interface (TTY, Teletype, DOS text printer, Generic printer) or HP Laserjet series II, W700 or 9K-L.
Communication Overrun (Error Message)	Bad communications Cable or CPU I/O	Replace cable or Call Service Representative.
	Computer software XON/XOFF not enabled.	Enable software XON / XOFF.

SYMPTOM	CAUSE	SOLUTION
Framing Error (Error Message)	Incorrect Word Length / Parity / Baud Rate	Turn printer off then back on and send data again. Reset settings for Baud rate in printer or computer.
Parity Error (Error Message)	Incorrect Parity setting	Turn printer off then back on and send data again. Reset Parity rate in printer or computer.
Parallel Interface, printer is not printing (Printer Halted)	Bad data sent	Turn printer off, then turn printer on and send again.
	Bad communications Cable	Replace parallel cable, maximum length 10 feet (304.8 cm)
	Bad main processor board	Call Service Representative.
	Centronic (Parallel) Cable over maximum length	Replace parallel cable, maximum length 10 feet (304.8 cm)
	Incorrect Software Driver	Typical dumb printer interface (TTY, Teletype, DOS text printer, Generic printer) or HP Laserjet series II, W700 or 9K-L.
Serial Interface, printer is not printing	Bad data sent	Turn printer off, then turn printer on and send again.
	Bad communications Cable	Replace serial cable, maximum length 15 feet (457.2 cm)
	Bad main processor board	Call Service Representative.
	RS232 -C (Serial) over maximum length	Replace serial cable, maximum length 15 feet (457.2 cm)
	Incorrect Software Driver	Typical dumb printer interface (TTY, Teletype, DOS text printer, Generic printer) HP Laserjet series II, W700 or 9K-L.
Optional Fonts not functioning	Font Cartridge not installed correctly	Verify the Font Cartridge label is facing the operator. Verify the Font Cartridge is inserted all the way into the Font Cartridge Slot.
Address Too High (Error Message)	Software Margin incorrect	Top Line of the Address is above the edge of the media. Move the location of the address down.
Address Too Low (Error Message)	Software Margin incorrect	The Address is below the Bottom edge of the media. The bottom edge margin must be increased.

SYMPTOM	CAUSE	SOLUTION
Shuttle Jam (Error Message)	Shuttle is hitting media	Lift lever up to raise the Print Head Holder so head height is above the media.
	Lower Print Head Shaft dirty.	Clean shaft with alcohol and soft cotton cloth.
	Print Head Holder bushings clogged with paper dust	Call Service Representative.
Out of Memory (Error Message)	Overuse of graphics / page information	Turn printer off then send again.
Font Card Removed (Error Message)	Connection to font card incomplete.	Insert Font Card, turn printer off, then turn printer on and send again.
Battery Error (Error Message)	Battery is low and cannot maintain the printers settings when powered down.	Call Service Representative.
No Barcode	Address margin below 5/8" (1.6 cm) minimum distance	Lower Right Barcode, the distance between the last line of the address field and the bottom edge of the media must be at least 5/8 inches (1.6 cm).
	Invalid Zip Code or more data following Zip Code.	Check Zip Code and correct, remove any data following the Zip Code.
	Five (5) Digit Zip Code turned off.	The 5 digit zip code option in the print Main Menu is Off.
Barcode (lower right) is wandering (up and down)	Belt tension is not adjusted correctly.	Call Service Representative.

Notes: _____

_____

Appendix A • Bryce Office Systems 5K-LE **MAIN MENU** Flow Chart

----MAIN MENU----	Address Layout	DIST TO RIGHT +MORE	DIST TO RIGHT +MORE			
1. Address Layout	**A. Dist to Right**	*4.50 in -LESS	*115 mm -LESS			
	Address Layout	DIST TO BOTTOM +MORE	DIST TO BOTTOM +MORE			
	B Dist to Bottom	*2.00 in -LESS	*50 mm -LESS			
	Address Layout	LINE SPACING	LINE SPACING	LINE SPACING	LINE SPACING	LINE SPACING
	C. Line Spacing	3 lines/inch	4 lines/inch	6 lines/inch	8 lines/inch	*Automatic
	Address Layout	ORIENTATION	ORIENTATION			
	D. Orientation	*Normal	Invert			

① Substituted Address Layout menu selections when ORIENTATION is in **Invert**.

	① Address Layout	LEFT MARGIN +MORE	LEFT MARGIN +MORE
	A. Dist to Left	*4.50 in -LESS	*115 mm -LESS
	① Address Layout	TOP MARGIN +MORE	TOP MARGIN +MORE
	B Dist to Top	*2.00 in -LESS	*50 mm -LESS

----MAIN MENU----	Print Quality	Print Quality	Print Quality
2. Print Quality	*Executive	Letter	Draft

----MAIN MENU----	FONT	FONT NAME ③	FONT NAME ③	FONT NAME ③	FONT NAME ③	FONT NAME ③
3. Font	②**A. Name**	*Courier	Sans Serif	Roman	Ocr A	Ocr B
		FONT NAME ③				
		Code 39				
	FONT	FONT SIZE +LARGER				
	B. Size	*12 point -SMALLER				
	FONT	FONT WIDTH	FONT WIDTH	FONT WIDTH	FONT WIDTH	FONT WIDTH
	C. Width	*Normal (100%)	Thin (75%)	Condensed (50%)	Wide (125%)	Expanded (150%)
	FONT	BOLD	BOLD			
	D. Bold	*Off	On			
	FONT	ITALIC	ITALIC			
	E. Italic	*Off	On			
	FONT	OUTLINE	OUTLINE			
	F. Outline	*Off	On			

----MAIN MENU----	BARCODE	BARCODE LOCATION	BARCODE LOCATION	BARCODE LOCATION	BARCODE LOCATION
4. Barcode	**A. Location**	*Off	Above Address	Below Address	Lower Right Corner
	BARCODE	5 DIGIT BARCODE	5 DIGIT BARCODE		
	B. 5 Digit On/Off	*Off	On		

② To print a list of accessible fonts in their typeface, press the **[Test Env.]** button when in the **FONT** menu and the selection **A. Name** is displayed.

③ To print a fonts' character table, press the **[Test Env.]** button when in the **FONT NAME** sub-menu and the name of the desired font is displayed. The Code 39 font is not displayed or a selectable font.

Appendix A • Bryce Office Systems 5K-LE **MAIN MENU** Flow Chart

----MAIN MENU----	ADDRESS RECOVERY	02: John P. Jones	NONE TO RECOVER.
5.Address Recovery	**A. Get Address**	Hit Recover ENTER to	
	ADDRESS RECOVERY	Clear the +YES	
	B. Clear Memory	Address Buffer? -NO	

----MAIN MENU----	Clear address +YES	Address counter
6. Clear Counter	(pcs) counter? -NO	cleared. Pieces=0

----MAIN MENU----	JOB SETTINGS	Load Settings +MORE	Printer is set for
7. Job Settings	**A. Load**	from Job #3? -LESS	Job #3.
	JOB SETTINGS	Save Settings +MORE	Job #6 has been
	B. Save	as Job #6? -LESS	saved.

Appendix A • Bryce Office Systems 5K-LE **SETUP MENU** Flow Chart

----SETUP MENU----	HEAVY MEDIA MODE	HEAVY MEDIA MODE
1. Heavy Media Mode	* Off	On

----SETUP MENU----	Print a test +YES	Please wait. Test
2. Test Print Head	Pattern? -NO	pattern is printing

----SETUP MENU----	Purge Print +YES	Please wait. Print
3. Purge Print Head	Head? -NO	head being purged.

----SETUP MENU----	LINES/ADDRESS+MORE
4. Lines Per Address	*66 -LESS

----SETUP MENU----	SERIAL	BAUD RATE	BAUD RATE	BAUD RATE	BAUD RATE	BAUD RATE
5.Communications	**A. Baud Rate**	1200 Baud	2400 Baud	4800 Baud	* 9600 Baud	19200 Baud
	SERIAL **B. Parity**	PARITY *None	PARITY Even	PARITY Odd		
	SERIAL **C. Word Length**	WORD LENGTH 7 Data Bits	WORD LENGTH *8 Data Bits			
	SERIAL **D. LINE TERMINATION**	LINE TERMINATION *CR=CR, LF=LF	LINE TERMINATION CR=CR+LF LF=LF	LINE TERMINATION CR=CR LF=CR,LF	LINE TERMINATION CR=CR+LF LF=CR+LF	

----SETUP MENU----	HEX DUMP MODE	HEX DUMP MODE
6. Hex Dump Mode	*Off	On

----SETUP MENU----	LANGUAGE	ISO CHARACTER SET	ISO CHARACTER SET	ISO CHARACTER SET	ISO CHARACTER SET	ISO CHARACTER SET	ISO CHARACTER SET
7. Language	**A. Symbol Set**	*ISO 6 ANSI ASCII	ISO 69 FRENCH	ISO 21 GERMAN	ISO 4 UK	ISO 60 NORW / DAN	ISO 11 SWED / FIN
		ISO CHARACTER SET ISO 15 ITALIAN	ISO CHARACTER SET ISO 17 SPANISH	ISO CHARACTER SET ISO 61 NOR / DAN	ISO CHARACTER SET ISO 10 SWED / FIN	ISO CHARACTER SET ISO 16 PORTUGUESE	ISO CHARACTER SET ISO 8859
		ISO CHARACTER SET ROMAN 8	ISO CHARACTER SET WINDOWS LATIN 1	ISO CHARACTER SET PC 8	ISO CHARACTER SET CP 1250		
	LANGUAGE **B. Inch/Millimeter**	MEASUREMENT UNITS *Inch	MEASUREMENT UNITS Millimeter				
	LANGUAGE **C. Menu Language**	DISPLAY LANGUAGE *English	DISPLAY LANGUAGE German	DISPLAY LANGUAGE French	DISPLAY LANGUAGE Italian	DISPLAY LANGUAGE Spanish	DISPLAY LANGUAGE Dutch
		DISPLAY LANGUAGE Polish					

----SETUP MENU----	FEED DELAY +MORE
8.Env. Feed Delay	*0.0 SEC. -LESS

----SETUP MENU----	AUTO EJECT MODE	AUTO EJECT MODE
9.Env. Auto Eject	*On	*Off

----SETUP MENU----	ROM REV. = R123456 ④
10.Rom Revision #	MAINT COUNT =1234567

④ To print a list of the Main Menu, Setup Menu and Service Menu settings, press the **[Test Env.]** button when **ROM REV** is displayed.

---SERVICE MENU---	LEFT JUSTFY +MORE
1. Left Justify	5 -LESS

---SERVICE MENU---	PAPER SENSOR TEST	PAPER SENSOR TEST
2. Test Paper Sensor	Sensor Blocked	Sensor Unblocked

---SERVICE MENU---	SHUTTLE TEST +RIGHT	CONTINUOUS TEST
3. Test Shuttle Mot.	-LEFT	PRESS ANY KEY TO END.

---SERVICE MENU---	PAPER MOTOR +1 in.
4. Test Paper Motor	-1/150

---SERVICE MENU---	abcdefghijklmnopqrst
5. Test Display	ABCDEFGHIJKLMNOPQRST

scrolls for 3 seconds then stops

---SERVICE MENU---	BOTTOM EDGE +MORE
6. Env. Bottom Edge	-LESS

Press the **[Test Env.]** button to print a bottom edge test pattern. Check the distance from the pattern to the edge of the media. Requires two pieces of media.

HEX CHART

		MSB							
	DECIMAL	0	16	32	48	64	80	96	112
	HEX	0	1	2	3	4	5	6	7
0	0	NUL	DLE	SP	0	@	P	`	p
1	1	SOH	DC1	!	1	A	Q	a	q
2	2	STX	DC2	"	2	B	R	b	r
3	3	ETX	DC3	#	3	C	S	c	s
4	4	EOT	DC4	$	4	D	T	d	t
LSB 5	5	ENQ	NAK	%	5	E	U	e	u
6	6	ACK	SYN	&	6	F	V	f	v
7	7	BEL	ETB	'	7	G	W	g	w
8	8	BS	CAN	(	8	H	X	h	x
9	9	HT	EM	)	9	I	Y	i	y
10	A	LF	SUB	*	:	J	Z	j	z
11	B	VT	ESC	+	;	K	[	k	{
12	C	FF	FS	,	<	L	\	l	|
13	D	CR	GS	-	=	M	]	m	}
14	E	SO	RS	.	>	N	^	n	~
15	F	SI	US	/	?	O	_	o	DEL

HEX CHART

Example: The capital letter A is a HEX 41. Find the letter A on the above chart, and look towards the top of the chart (MSB) and the locate the HEX number 4. Then look to the left side of the chart (LSB) and locate the Hex number 1. Therefore the HEX number is MSB 4 and LSB 1= 41.

Introduction

The 5K-LE Address Printer emulates the listed PCL 5 printer command codes. The 5K-LE Address Printer will virtually handle media as an HP1200 would using these printer commands. Additional printer commands have been added to allow control of special printer addressing functions and addressing needs.

The printer command codes are sets of characters that allow your computer software to override the Industrial Printer menu selections as fonts, print quality, etc. so customized address formats can be created.

PCL Command Codes

Code Name	Symbol	HEX Value	DEC Value	Description
Line Feed	<LF>	0A	10	Causes the printer to advance the paper one line at current line spacing.
Form Feed	<FF>	0C	12	Causes the printer to advance the paper to the next top of form.
Carriage Return	<CR>	0D	13	Causes the printer to move the current print position to the left margin. Does not cause a paper advance.
Escape	<←>	1B	27	Indicates to the printer that the characters immediately following are part of a printer command.
Space	<SP>	20	32	Causes the printer to move the current print position one character to the right.

Note: The order that PCL Commands are received can affect the performance of the printer. PCL commands sent in the wrong order may produce erratic and unanticipated results. The following is a quick guideline for what order to send the PCL commands. For more explicit details see a PCL 5 Printer Language Technical Reference Manual.

To setup a page using PCL commands the expected order is:

1. Reset (Esc E)
2. Page Orientation
3. Definition of a Page Size
4. Margins on the page
5. Definitions of a Font
    a. Select a font
    b. Set the Font Height
    c. Set the Font Pitch
6. Set the positioning commands

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Initialization				
Reset	←E	1B 45	027 069	Defines reset conditions
Hard Reset	←H	1B 48	027 072	Performs reset plus clears all permanent macros, fonts, and address recovery buffer
Page Control				
Page Size Default	←&l0A	1B 26 6C 30 41	027 038 108 048 065	#10 Envelope values
Page Size Executive	←&l1A	1B 26 6C 31 41	027 038 108 049 065	7.25 x 10.5 inches (18.3 x 26.7 cm)
Page Size Letter	←&l2A	1B 26 6C 32 41	027 038 108 050 065	8.5 x 11 inches (21.6 x 27.9 cm)
Page Size Legal	←&l3A	1B 26 6C 33 41	027 038 108 051 065	8.5 x 14 inches (21.6 x 35.6)
Page Size A4	←&l26A	1B 26 6C 32 36 41	027 038 108 050 054 065	210 x 297 mm
Page Size Mon Env	←&l80A	1B 26 6C 38 30 41	027 038 108 056 048 065	7.5 x 3.88 inches (19.1 x 9.9 cm)
Page Size #10 Env	←&l81A	1B 26 6C 38 31 41	027 038 108 056 049 065	9.5 x 4.1 inches (24.1 x 10.4 cm)
Page Size DL Env	←&l90A	1B 26 6C 39 30 41	027 038 108 057 048 065	220 x 110 mm
Page Size C5 Env	←&l91A	1B 26 6C 39 31 41	027 038 108 057 049 065	229 x 162 mm
Page Size B5 Env	←&l100A	1B 26 6C 31 30 30 41	027 038 108 049 048 048 065	238 x 104 mm
Page Size 9.4” x 15”	←&l101A	1B 26 6C 31 30 31 41	027 038 108 049 048 049 065	9.4 x 15 inches (23.9 x 38.1 cm)
Left Margin	←&a#L	1B 26 61 #..# 4C	027 038 097 #..# 076	# of Columns. Defined by current HMI.
Clear Horiz Margins	←9	1B 39	027 057	
Top Margin	←&l#E	1B 26 6C #..# 45	027 038 108 #..# 069	# of Dots from origin
Page Length ①	←&l#P	1B 26 6C #..# 50	027 038 108 #..# 080	# of Lines
Text Length	←&l#F	1B 26 6C #..# 46	027 038 108 #..# 070	# of Lines
Horiz Motion Index (HMI)	←&k#H	1B 26 6B #..# 48	027 038 107 #..# 072	# of 1/120 inch (1/47 cm)

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Page Control				
Vertical Motion Index (VMI)	←&l#C	1B 26 6C #..# 43	027 038 108 #..# 067	# of 1/48 inch (1/19 cm)
Line Spacing	←&l#D	1B 26 6C #..# 44	027 038 108 #..# 068	# of lines per inch
Page Eject	←&l0H	1B 26 6C 30 48	027 038 108 048 072	
Heavy Media Mode OFF	←&l6H	1B 26 6C 36 48	027 038 108 054 072	Effects feed mode selection
Heavy Media Mode ON	←&l9H	1B 26 6C 39 48	027 038 108 057 072	Effects feed mode selection
Page Orientation	←&l0O	1B 26 6C 30 4F	027 038 108 048 079	Portrait
	←&l2O	1B 26 6C 32 4F	027 038 108 050 079	Reverse Portrait
Dry Hold Time	←&b#T	1B 26 62 #..# 54	027 038 098 #..# 084	Minimum time between pieces in 1/10 seconds. Specifies time from leading edge to leading edge. Dflt = 0. Max. = 300
Page Height	←+s#H	1B 2B 73 #..# 48	027 043 115 #..# 072	# = height in PCL units. (1/300 in.) (1/118 cm) Range of values is 1050 ... 4500 (3 to 15 in.) (7.62 to 38.1 cm).
Page Width ①	←+s#W	1B 2B 73 #..# 57	027 043 115 #..# 087	# = width in PCL units (1/300 in.) (1/118 cm) Range of values is 1500 .. 2820 (5 to 9.4 in.) (12.7 to 23.9 cm).
Cursor Positioning				
Horizontal Position	←&a#C	1B 26 61 #..# 43	027 038 097 #..# 067	Move to Column no.
	←*p#X	1B 2A 70 #..# 58	027 042 112 #..# 088	# of Dots
	←&a#H	1B 26 61 #..# 48	027 038 097 #..# 072	# of Decipoints (1/720 inch) (1/283 cm)
Vertical Position	←&a#R	1B 26 61 #..# 52	027 038 097 #..# 082	Move to Row no.
	←*p#Y	1B 2A 70 #..# 59	027 042 112 #..# 089	# of Dots
	←&a#V	1B 26 61 #..# 56	027 038 097 #..# 086	# of Decipoints (1/720 inch) (1/283 cm)
Half Line Feed	←=	1B 3D	027 061	Half of current VMI

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Cursor Positioning				
Line Termination	←&k#G			
	0	1B 26 6B 30 47	027 038 107 048 071	CR=CR, LF=LF, FF=FF
	1	1B 26 6B 31 47	027 038 107 049 071	CR=CR+LF, LF=LF, FF=FF
	2	1B 26 6B 32 47	027 038 107 050 071	CR=CR, LF=CR+LF, FF=CR+FF
	3	1B 26 6B 33 47	027 038 107 051 071	CR=CR+LF, LF=CR+LF, FF=CR+FF
Font Selection (Primary)				
Symbol Set	←(ID	1B 28 # .. #	027 040 # .. #	
	←(0D	1B 28 30 44	027 040 048 068	ISO 60 Norwegian ver 1
	←(0I	1B 28 30 49	027 040 048 073	ISO 15 Italian
	←(0N	1B 28 30 4E	027 040 048 078	ISO 8859
	←(0S	1B 28 30 53	027 040 048 083	ISO 11 Swedish
	←(0U	1B 28 30 55	027 040 048 085	ANSI ASCII
	←(1D	1B 28 31 44	027 040 049 068	ISO 61 Norwegian ver 2
	←(1E	1B 28 31 45	027 040 049 069	ISO 4 UK
	←(1F	1B 28 31 46	027 040 049 070	ISO 69 French
	←(1G	1B 28 31 47	027 040 049 071	ISO 21 German
	←(2S	1B 28 32 53	027 040 050 083	ISO 17 Spanish
	←(3S	1B 28 33 53	027 040 051 083	ISO 10 Swedish
	←(4S	1B 28 34 53	027 040 052 083	ISO 16 Portuguese
	←(8U	1B 28 38 55	027 040 056 085	Roman 8
	←(10U	1B 28 31 30 55	027 040 049 048 085	PC - 8
	←(12U	1B 28 31 32 55	027 040 049 050 085	PC 850
	←(19U	1B 28 31 39 55	027 040 049 057 085	Windows 3.1 Latin
Print Quality	←(s#Q			
	←(s0Q	1B 28 73 30 51	027 040 115 048 081	Quality = Draft
	←(s1Q	1B 28 73 31 51	027 040 115 049 081	Quality = Letter
	←(s2Q	1B 28 73 32 51	027 040 115 050 081	Quality = Executive
	←(s4Q	1B 28 73 34 51	027 040 115 052 081	Quality = Super Draft
Spacing ©	←(s#P			
	0	1B 28 73 30 50	027 040 115 048 080	Fixed Spacing
	1	1B 28 73 31 50	027 040 115 049 080	Proportional Spacing
Height	←(s#V	1B 28 73 #..# 56	027 040 115 #..# 086	Point Size #/72 inch (1/28 cm)

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Font Selection (Primary)				
Style	←(s#S			
	0	1B 28 73 30 53	027 040 115 048 083	Upright
	1	1B 28 73 31 53	027 040 115 049 083	Italic
	2	1B 28 73 32 53	027 040 115 050 083	Expanded (150%)
	3	1B 28 73 33 53	027 040 115 051 083	Italic, Expanded (150%)
	4	1B 28 73 34 53	027 040 115 052 083	Thin (75%)
	5	1B 28 73 35 53	027 040 115 053 083	Italic, Thin (75%)
	8	1B 28 73 38 53	027 040 115 056 083	Condensed (50%)
	9	1B 28 73 39 53	027 040 115 057 083	Italic, Condensed (50%)
	16	1B 28 73 31 36 53	027 040 115 049 054 083	Wide (125%)
	17	1B 28 73 31 37 53	027 040 115 049 055 083	Italic, Wide (125%)
	32	1B 28 73 33 32 53	027 040 115 051 050 083	Hollow
	33	1B 28 73 33 33 53	027 040 115 051 051 083	Hollow, Italic
	34	1B 28 73 33 34 53	027 040 115 051 052 083	Hollow, Expanded (150%)
	35	1B 28 73 33 35 53	027 040 115 051 053 083	Hollow, Italic, Expanded (150%)
	36	1B 28 73 33 36 53	027 040 115 051 054 083	Hollow, Thin (75%)
	37	1B 28 73 33 37 53	027 040 115 051 055 083	Hollow, Italic, Thin (75%)
	40	1B 28 73 34 30 53	027 040 115 052 048 083	Hollow, Condensed (50%)
	41	1B 28 73 34 31 53	027 040 115 052 049 083	Hollow, Italic, Condensed (50%)
	48	1B 28 73 34 38 53	027 040 115 052 056 083	Hollow, Wide (125%)
	49	1B 28 73 34 39 53	027 040 115 052 057 083	Hollow, Italic, Wide (125%)
Stroke Weight	←(s#B			
	0	1B 28 73 30 42	027 040 115 048 066	Normal
	3	1B 28 73 33 42	027 040 115 051 066	Bold

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Font Selection (Primary)				
Typeface	←(s#T			
	3	1B 28 73 33 54	027 040 115 051 084	Courier
	4	1B 28 73 34 54	027 040 115 052 084	San Serif
	5	1B 28 73 35 54	027 040 115 053 084	Roman
	61440	1B 28 73 36 31 34 34 30 54	027 040 115 054 049 052 052 048 084	External (First)
	61441	1B 28 73 36 31 34 34 31 54	027 040 115 054 049 052 052 049 084	External (Second) If available
Font Selection				
Font Selection	←(#X	1B 28 #..# 58	027 040 #..# 088	Font ID # from download
Font Selection (Secondary)				
Symbol Set	←)ID	1B 29 # .. #	027 041 # .. #	
	←)0D	1B 29 30 44	027 041 048 068	ISO 60 Norwegian ver 1
	←)0I	1B 29 30 49	027 041 048 073	ISO 15 Italian
	←)0N	1B 29 30 4E	027 041 048 078	ISO 8859
	←)0S	1B 29 30 53	027 041 048 083	ISO 11 Swedish
	←)0U	1B 29 30 55	027 041 048 085	ANSI ASCII
	←)1D	1B 29 31 44	027 041 049 068	ISO 61 Norwegian ver 2
	←)1E	1B 29 31 45	027 041 049 069	ISO 4 UK
	←)1F	1B 29 31 46	027 041 049 070	ISO 69 French
	←)1G	1B 29 31 47	027 041 049 071	ISO 21 German
	←)2S	1B 29 32 53	027 041 050 083	ISO 17 Spanish
	←)3S	1B 29 33 53	027 041 051 083	ISO 10 Swedish
	←)4S	1B 29 34 53	027 041 052 083	ISO 16 Portuguese
	←)8U	1B 29 38 55	027 041 056 085	Roman 8
	←)10U	1B 29 31 30 55	027 041 049 048 085	PC - 8
	←)12U	1B 29 31 32 55	027 041 049 050 085	PC 850
	←)19U	1B 29 31 39 55	027 041 049 057 085	Windows 3.1 Latin
Print Quality	←)s#Q			
	←)s0Q	1B 29 73 30 51	027 041 115 048 081	Quality = Draft
	←)s1Q	1B 29 73 31 51	027 041 115 049 081	Quality = Letter
	←)s2Q	1B 29 73 32 51	027 041 115 050 081	Quality = Executive
Spacing ©	←)s#P			
	0	1B 29 73 30 50	027 041 115 048 080	Fixed Spacing
	1	1B 29 73 31 50	027 041 115 049 080	Proportional Spacing

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Font Selection (Secondary)				
Height	←)s#V	1B 29 73 #..# 56	027 041 115 #..# 086	Point Size #/72 inch (1/28 cm)
Style	←)s#S			
	0	1B 29 73 30 53	027 041 115 048 083	Upright
	1	1B 29 73 31 53	027 041 115 049 083	Italic
	2	1B 29 73 32 53	027 041 115 050 083	Expanded (150%)
	3	1B 29 73 33 53	027 041 115 051 083	Italic, Expanded (150%)
	4	1B 29 73 34 53	027 041 115 052 083	Thin (75%)
	5	1B 29 73 35 53	027 041 115 053 083	Italic, Thin (75%)
	8	1B 29 73 38 53	027 041 115 056 083	Condensed (50%)
	9	1B 29 73 39 53	027 041 115 057 083	Italic, Condensed (50%)
	16	1B 29 73 31 36 53	027 041 115 049 054 083	Wide (125%)
	17	1B 29 73 31 37 53	027 041 115 049 055 083	Italic, Wide (125%)
	32	1B 29 73 33 32 53	027 041 115 051 050 083	Hollow
	33	1B 29 73 33 33 53	027 041 115 051 051 083	Hollow, Italic
	34	1B 29 73 33 34 53	027 041 115 051 052 083	Hollow, Expanded (150%)
	35	1B 29 73 33 35 53	027 041 115 051 053 083	Hollow, Italic, Expanded (150%)
	36	1B 29 73 33 36 53	027 041 115 051 054 083	Hollow, Thin (75%)
	37	1B 29 73 33 37 53	027 041 115 051 055 083	Hollow, Italic, Thin (75%)
	40	1B 29 73 34 30 53	027 041 115 052 048 083	Hollow, Condensed (50%)
	41	1B 29 73 34 31 53	027 041 115 052 049 083	Hollow, Italic, Condensed (50%)
	48	1B 29 73 34 38 53	027 041 115 052 056 083	Hollow, Wide (125%)
	49	1B 29 73 34 39 53	027 041 115 052 057 083	Hollow, Italic, Wide (125%)
Stroke Weight	←)s#B			
	0	1B 29 73 30 42	027 041 115 048 066	Normal
	3	1B 29 73 33 42	027 041 115 051 066	Bold

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Font Selection (Secondary)				
Typeface	←)s#T			
	3	1B 29 73 33 54	027 041 115 051 084	Courier
	4	1B 29 73 34 54	027 041 115 052 084	San Serif
	5	1B 29 73 35 54	027 041 115 053 084	Roman
	61440	1B 29 73 36 31 34 34 30 54	027 041 115 054 049 052 052 048 084	External (First)
	61441	1B 29 73 36 31 34 34 31 54	027 041 115 054 049 052 052 049 084	External (Second) If available
Underline				
Underline	←&d#D			
Underline On	0	1B 26 64 30 44	027 038 100 48 068	
Underline On	3	1B 26 64 33 44	027 038 100 51 068	
Underline Off	←&d@	1B 26 64 40	027 038 100 064	
Macros ②				
Macro ID	←&f#Y	1B 26 66 #..# 59	027 038 102 #..# 089	# is macro ID
Macro Control	←&f#X			
	0	1B 26 66 30 58	027 038 102 048 088	Start macro definition (last ID specified)
	1	1B 26 66 31 58	027 038 102 049 088	Stop macro definition
	2	1B 26 66 32 58	027 038 102 050 088	Execute Macro (last ID specified). Use current modified print environment. Changes retained on completion
	3	1B 26 66 33 58	027 038 102 051 088	Call Macro (last ID specified). Use current modified print environment. Restore prior environment on completion.
	4	1B 26 66 34 58	027 038 102 052 088	Enable macro for auto overlay (last ID specified)
	5	1B 26 66 35 58	027 038 102 053 088	Disable auto overlay
	6	1B 26 66 36 58	027 038 102 054 088	Delete all Macros
	7	1B 26 66 37 58	027 038 102 055 088	Delete all temp macros
	8	1B 26 66 38 58	027 038 102 056 088	Delete Macro (last ID specified)
	9	1B 26 66 39 58	027 038 102 057 088	Make macro temp (last ID specified)

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
	10	1B 26 66 31 30 58	027 038 102 049 048 088	Make macro perm (last ID specified)
Programming				
Hex Dump Mode ON	←Y	1B 59	027 089	Data printed as hex numbers, ESC and Control codes not executed.
Hex Dump Mode OFF	←Z	1B 5A	027 090	
Font Management				
Assign Font ID #	←*c#D	1B 2A 63 #..# 44	027 042 099 #..# 068	# is Font ID
Font Control	←*c#F			
	0	1B 2A 63 30 46	027 042 099 048 070	Delete all Fonts
	1	1B 2A 63 31 46	027 042 099 049 070	Delete temp fonts
	2	1B 2A 63 32 46	027 042 099 050 070	Delete last font
	3	1B 2A 63 33 46	027 042 099 051 070	Delete Character
	4	1B 2A 63 34 46	027 042 099 052 070	Make font temp
	5	1B 2A 63 35 46	027 042 099 053 070	Make font permanent
Soft Font Creation ③				
Font Descriptor	←)s#W [data]	1B 29 73 #..# 57 data	027 041 115 #..# 087 data	Laser Jet soft fonts are supported. These fonts always have a 64 byte descriptor. Desk Jet fonts are not supported.
Character Code	←*c#E	1B 2A 63 #..# 45	027 042 099 #..# 069	ASCII code no.
Download Character	←(s#W [data]	1B 28 73 #..# 57 data	027 040 115 #..# 087 data	
Raster Graphics				
Raster Graphics Compression	←*b#M			
	0	1B 2A 62 30 4D	027 042 098 048 077	Uncompressed format
	2	1B 2A 62 32 4D	027 042 098 050 077	TIFF format
	3	1B 2A 62 33 4D	027 042 098 051 077	Delta Row compression
	4	1B 2A 62 34 4D	027 042 098 052 077	Reserved
Transfer graphics by plane	←*b #V	1B 2A 62 # 56 [data]	027 042 098 # 086 [data]	
Transfer Raster Graphics data	←*b#W [data]	1B 2A 62 #..# 57 [data]	027 042 098 #..# 087 [data]	Number of bytes
Raster Y Offset	←*b #Y [data]	1B 2A 62 #..# 59 [data]	027 042 098 #..# 089 [data]	Number of dots

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Start Raster Graphics	←*r#A			
	0	1B 2A 72 30 41	027 042 114 048 065	Place to left most position
	1	1B 2A 72 31 41	027 042 114 049 065	Place at current position
End Raster Graphics				
	←*rB	1B 2A 72 42	027 042 114 066	
	←*rC	1B 2A 72 43	027 042 114 067	Resets left margin to 0
Set Raster Graphics Width	←*r#S	1B 2A 72 #..# 53	027 042 114 #..# 083	Set number of pixels
Set Raster Graphics Height	←*r#T	1B 2A 72 # 54	027 042 114 # 084	Height is raster rows
Simple Color	←*r#U			
Black pallet	1	1B 2A 72 31 55	027 042 114 049 085	1 plane
Raster Graphics Resolution	←*t#R			
	75	1B 2A 72 37 35 52	027 042 116 055 055 082	75 dots per inch
	150	1B 2A 72 31 35 30 52	027 042 116 049 053 048 082	150 dots per inch
	300	1B 2A 72 33 30 30 52	027 042 116 051 048 048 082	300 dots per inch

① The Page Width & Page Length printer commands function like the Page Size command. Using these commands automatically enables Page Eject and disables overlay macros. Both the Page Width and Page Length commands can be used independently and will only change the width or length to the maximum allowable page size of 9.4 x 15 inches (23.9 x 38.1 cm). Setting the cursor positioning commands, margin settings, print data, etc. to cause printing beyond the pages size dimensions will be cropped.

② Only one overlay macro can be used at a time, and cannot be recursive. The overlay macros need print quality, page parameters, etc. to determine the printers' page setup.

③ Soft font creation is in HP non compressed Bit Map Font Format.

⑥ The resident fonts are scaleable from 8 to 30 points. If a desired font spacing does not match the font selected an internal font will be substituted. For fixed spacing the substitute font will be Courier, and Sans Serif for proportionally spaced fonts. Characteristics of the font being replaced, such as point size, print width, etc., will be matched by the substituted font.

To determine page size or cusor movement in Dots multiply by 300 Dots /inch (2.54 cm) for Horizontal and 300 Dots /inch (2.54 cm) for Vertical. Example: a Letter size page of 8.5 x 11 inches (21.6 x 27.9 cm) is 2550 x 3300 Dots

PCL parameterized escape sequences

To utilize the 5K-LE Address Printers internal bar-coding features, records are searched for a valid ZIP, ZIP + 4, Delivery Point Bar Code (DPBC) or DPBC with a check sum. For ZIP + 4 or a 11 digit DPBC, a checksum is computed for printing a USPS Postnet bar-code with framing bars. The position of the Postnet bar-code is determined by the printers menu setup or the bar-code location commands in effect. Bar-codes will not be printed outside of the printers' Page Size setup.

Printer Feature	**Printer Command**	**HEX Equivalent**	**DEC Equivalent**	**Description**
Bar Code				
Non - address data markers ④	←+b#A			Marks data that is not part of destination address.
	1	1B 2B 62 31 41	027 043 098 49 065	marks the end of non-address data
	2	1B 2B 62 32 41	027 043 098 50 065	marks the beginning of the non-address data.
5 Digit Bar Codes	←+b#D			
	0	1B 2B 62 30 44	027 043 098 048 068	Don't print 5 Digit Bar Codes
	1	1B 2B 62 31 44	027 043 098 049 068	Print all Bar Codes for zip, zip + 4, and DPBC.
Bar Code	←+b#E			
	0	1B 2B 62 30 45	027 043 098 048 069	Disable Bar Code
	1	1B 2B 62 31 45	027 043 098 049 069	Enable Bar Code
Bar Code - Horizontal	←+b#H	1B 2B 62 #..# 48	027 043 098 #..# 072	# of Decipoints (1/720 inch) (1/283 cm)
Bar Code Placement	←+b#P	1B 2B 62 #..# 50	027 043 098 #..# 080	Distance in 1/10 inch (1/4 cm) units from right edge of media. Value of 0 indicates edge of media
	0	1B 2B 62 30 50	027 043 098 048 080	Bar Code in lower right (default position)
	1	1B 2B 62 31 50	027 043 098 049 080	Bar Code above address
	2	1B 2B 62 32 50	027 043 098 050 080	Bar Code below address
⑦	3	1B 2B 62 33 50	027 043 098 051 080	Print Bar Code at specified horizontal & vertical position, otherwise print Bar Code in default position

PCL parameterized escape sequences

Printer Feature	Printer Command	HEX Equivalent	DEC Equivalent	Description
Bar Code				
Bar Code - Vertical	←+b#V	1B 2B 62 #..# 56	027 043 098 #..# 086	VMI # in Decipoints (1/720 inch) from bottom of page to bottom of bar-code
ZIP Code command Bar Code -⑤	←+b#Znnn	1B 2B 62 #..# 5A nnn	027 043 098 #..# 090 nnn	#= number of characters in the ZIP Code string. n = the ASCII representation of the ZIP code string.
	←+b5Z nnnnn	1B 2B 62 35 5A nnnnn	027 043 098 053 090 nnnnn	n = the ASCII representation of the ZIP code string. Must contain 5 digits.
	←+b9Z nnnnnnnnn	1B 2B 62 39 5A nnnnnnnnn	027 043 098 057 090 nnnnnnnnn	n = the ASCII representation of the ZIP code string. Must contain 9 digits.
	←+b11Z nnnnnnnnnn	1B 2B 62 31 31 5A nnnnnnnnnnn	027 043 098 49 49 090 nnnnnnnnnnn	n = the ASCII representation of the ZIP code string. Must contain 11 digits.
	←+b12Z nnnnnnnnnnn	1B 2B 62 31 32 5A nnnnnnnnnnnn	027 043 098 049 050 090 nnnnnnnnnnnn	n = the ASCII representation of the ZIP code string. Must contain 12 digits.

④ Use a pair of escape sequences, the first one before the data that is not part of the destination address such as return addresses, graphics, messages, etc. and the other to mark the end.

⑤ Use Zip Code command when two ZIP codes are being sent. The first ZIP code will be printed without a bar-code. The second ZIP code in the Zip Code command string will print a corresponding bar-code but not print the ZIP code. The Zip Code command only overrides the bar-code command for the present address.

⑦ Use the ←+b#H and ←+b#V commands to position the bar code. Measure the position from the right-hand corner of the leading edge of the media, not the upper left-hand corner.

5K-LE CHARACTER SET

(Modeled after PC 850 Character Table)

0	16	<SP> 32	0 48	@ 64	P 80	` 96	p 112	Ç 128	É 144	á 160	▒ 176	└ 192	ð 208	Ó 224	- 240
1	17	! 33	1 49	A 65	Q 81	a 97	q 113	ü 129	æ 145	í 161	▒ 177	┴ 193	Ð 209	ß 225	± 241
2	18	" 34	2 50	B 66	R 82	b 98	r 114	é 130	Æ 146	ó 162	▓ 178	┬ 194	Ê 210	Ô 226	242
3	19	# 35	3 51	C 67	S 83	c 99	s 115	â 131	ô 147	ú 163	│ 179	├ 195	Ë 211	Ò 227	243
4	20	$ 36	4 52	D 68	T 84	d 100	t 116	ä 132	ö 148	ñ 164	┤ 180	─ 196	È 212	õ 228	¶ 244
5	21	% 37	5 53	E 69	U 85	e 101	u 117	à 133	ò 149	Ñ 165	Á 181	┼ 197	213	Õ 229	§ 245
6	22	& 38	6 54	F 70	V 86	f 102	v 118	å 134	û 150	ª 166	Â 182	ã 198	Í 214	µ 230	246
7	23	' 39	7 55	G 71	W 87	g 103	w 119	ç 135	ù 151	° 167	À 183	Ã 199	Î 215	Þ 231	¸ 247
8	24	(40	8 56	H 72	X 88	h 104	x 120	ê 136	ÿ 152	¿ 168	© 184	╚ 200	Ï 216	þ 232	º 248
9	25	) 41	9 57	I 73	Y 89	i 105	y 121	ë 137	Ö 153	® 169	╣ 185	╔ 201	┘ 217	Ú 233	¨ 249
<LF> 10	26	* 42	: 58	J 74	Z 90	j 106	z 122	è 138	Ü 154	170	║ 186	╩ 202	┌ 218	Û 234	• 250
11	<ESC> 27	+ 43	; 59	K 75	[91	k 107	{ 123	ï 139	ø 155	½ 171	╗ 187	╦ 203	█ 219	Ù 235	251
<FF> 12	28	, 44	< 60	L 76	\ 92	l 108	| 124	î 140	£ 156	172	╝ 188	╠ 204	▄ 220	236	252
<CR> 13	29	- 45	= 61	M 77	] 93	m 109	} 125	ì 141	Ø 157	¡ 173	¢ 189	═ 205	| 221	237	253
14	30	. 46	> 62	N 78	^ 94	n 110	~ 126	Ä 142	158	« 174	¥ 190	╬ 206	Ì 222	¯ 238	254
15	31	/ 47	? 63	O 79	_ 95	o 111	127	Å 143	ƒ 159	» 175	┐ 191	¤ 207	▀ 223	´ 239	™ 255

International Character Substitution

The following industry standard character substitution techniques are utilized:

ISO #	Character Set Name	ID #	35	36	64	91	92	93	94	96	123	124	125	126
6	ANSI ASCII	0U	#	$	@	[	\	]	^	`	{	|	}	~
69	French	1F	£	$	à	°	ç	§	^	µ	é	ù	è	¨
21	German	1G	#	$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
4	United Kingdom	1E	£	$	@	[	\	]	^	`	{	|	}	¯
60	Norwegian/Danish	0D	#	$	@	Æ	Ø	Å	^	`	æ	ø	å	¯
11	Swedish/Finnish	0S	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
15	Italian	0I	£	$	§	°	ç	é	^	ù	à	ò	è	ì
17	Spanish	2S	£	$	§	¡	Ñ	¿	^	`	°	ñ	ç	~
61	Norwegian/Danish	1D	§	$	@	Æ	Ø	Å	^	`	æ	ø	å	|
16	Portuguese	4S	#	$	§	Ã	Ç	Õ	^	`	ã	ç	õ	°
10	Swedish	3S	#	¤	@	Ä	Ö	Å	^	`	ä	ö	å	¯

5K-LE CHARACTER SET

(Modeled after 8859 Latin Character Table)

0	16	<SP> 32	0 48	@ 64	P 80	` 96	p 112	128	144	160	° 176	À 192	Ð 208	à 224	ð 240
1	17	! 33	1 49	A 65	Q 81	a 97	q 113	129	145	¡ 161	± 177	Á 193	Ñ 209	á 225	ñ 241
2	18	" 34	2 50	B 66	R 82	b 98	r 114	130	146	¢ 162	178	Â 194	Ò 210	â 226	ò 242
3	19	# 35	3 51	C 67	S 83	c 99	s 115	131	147	£ 163	179	Ã 195	Ó 211	ã 227	ó 243
4	20	$ 36	4 52	D 68	T 84	d 100	t 116	132	148	¤ 164	´ 180	Ä 196	Ô 212	ä 228	ô 244
5	21	% 37	5 53	E 69	U 85	e 101	u 117	133	149	¥ 165	µ 181	Å 197	Õ 213	å 229	õ 245
6	22	& 38	6 54	F 70	V 86	f 102	v 118	134	150	¦ 166	¶ 182	Æ 198	Ö 214	æ 230	ö 246
7	23	' 39	7 55	G 71	W 87	g 103	w 119	135	151	§ 167	• 183	Ç 199	215	ç 231	247
8	24	(40	8 56	H 72	X 88	h 104	x 120	136	152	¨ 168	¸ 184	È 200	Ø 216	è 232	ø 248
9	25	) 41	9 57	I 73	Y 89	i 105	y 121	137	153	© 169	185	É 201	Ù 217	é 233	ù 249
<LF> 10	26	* 42	: 58	J 74	Z 90	j 106	z 122	138	154	a 170	186	Ê 202	Ú 218	ê 234	ú 250
11	<ESC> 27	+ 43	; 59	K 75	[91	k 107	{ 123	139	155	« 171	» 187	Ë 203	Û 219	ë 235	û 251
<FF> 12	28	, 44	< 60	L 76	\ 92	l 108	| 124	140	156	172	188	Ì 204	Ü 220	ì 236	ü 252
<CR> 13	29	- 45	= 61	M 77	] 93	m 109	} 125	141	157	- 173	½ 189	Í 205	221	í 237	253
14	30	. 46	> 62	N 78	^ 94	n 110	~ 126	142	158	® 174	190	Î 206	Þ 222	î 238	þ 254
15	31	/ 47	? 63	O 79	_ 95	o 111	127	143	159	¯ 175	¿ 191	Ï 207	ß 223	ï 239	ÿ 255

The ID# for the ISO 8859 Character Set is (0N).

5K-LE CHARACTER SET

(Modeled after Roman -8 Character Table)

0	16	<SP> 32	0 48	@ 64	**P** 80	` 96	**p** 112	128	144	160	¯ 176	â 192	Å 208	**Á** 224	þ 240
1	17	**!** 33	**1** 49	**A** 65	**Q** 81	**a** 97	**q** 113	129	145	**À** 161	177	ê 193	î 209	**Ã** 225	Þ 241
2	18	**"** 34	**2** 50	**B** 66	**R** 82	**b** 98	**r** 114	130	146	**Â** 162	178	ô 194	**Ø** 210	**ã** 226	· 242
3	19	**#** 35	**3** 51	**C** 67	**S** 83	**c** 99	**s** 115	131	147	**È** 163	º 179	û 195	**Æ** 211	**Đ** 227	µ 243
4	20	**$** 36	**4** 52	**D** 68	**T** 84	**d** 100	**t** 116	132	148	**Ê** 164	Ç 180	á 196	**å** 212	**ð** 228	¶ 244
5	21	**%** 37	**5** 53	**E** 69	**U** 85	**e** 101	**u** 117	133	149	**Ë** 165	**ç** 181	é 197	í 213	**Í** 229	245
6	22	**&** 38	**6** 54	**F** 70	**V** 86	**f** 102	**v** 118	134	150	Î 166	**Ñ** 182	**ó** 198	**ø** 214	**Í** 230	– 246
7	23	**'** 39	**7** 55	**G** 71	**W** 87	**g** 103	**w** 119	135	151	Ï 167	**ñ** 183	**ú** 199	**æ** 215	Ó 231	247
8	24	**(** 40	**8** 56	**H** 72	**X** 88	**h** 104	**x** 120	136	152	´ 168	¡ 184	à 200	**Ä** 216	Ò 232	½ 248
9	25	**)** 41	**9** 57	**I** 73	**Y** 89	**i** 105	**y** 121	137	153	169	¿ 185	è 201	ì 217	**Õ** 233	ª 249
<LF> 10	26	***** 42	**:** 58	**J** 74	**Z** 90	**j** 106	**z** 122	138	154	**^** 170	**¤** 186	ò 202	Ö 218	**õ** 234	º 250
11	<ESC> **27**	**+** 43	**;** 59	**K** 75	**[** 91	**k** 107	**{** 123	139	155	¨ 171	**£** 187	ù 203	Ü 219	**Š** 235	« 251
<FF> 12	28	**,** 44	**<** 60	**L** 76	**** 92	**l** 108	**|** 124	140	156	172	**¥** 188	ä 204	É 220	š 236	252
<CR> 13	29	**-** 45	**=** 61	**M** 77	**]** 93	**m** 109	**}** 125	141	157	**Ù** 173	§ 189	ë 205	**ï** 221	Ú 237	» 253
14	30	**.** 46	**>** 62	**N** 78	**^** 94	**n** 110	**~** 126	142	158	**Û** 174	*ƒ* 190	**ö** 206	**ß** 222	**Ÿ** 238	± 254
15	31	**/** 47	**?** 63	**O** 79	_ 95	**o** 111	127	143	159	**£** 175	¢ 191	**ü** 207	Ô 223	**ÿ** 239	255

The ID# for the Roman 8 Character Set is (8U).

5K-LE CHARACTER SET

(Modeled after Windows 3.1 Latin Character Table)

0	16	<SP> 32	0 48	@ 64	P 80	` 96	p 112	128	144	160	° 176	À 192	Ð 208	à 224	ð 240
1	17	! 33	1 49	A 65	Q 81	a 97	q 113	129	145	¡ 161	± 177	Á 193	Ñ 209	á 225	ñ 241
2	18	" 34	2 50	B 66	R 82	b 98	r 114	, 130	146	¢ 162	178	Â 194	Ò 210	â 226	ò 242
3	19	# 35	3 51	C 67	S 83	c 99	s 115	ƒ 131	" 147	£ 163	179	Ã 195	Ó 211	ã 227	ó 243
4	20	$ 36	4 52	D 68	T 84	d 100	t 116	132	„ 148	¤ 164	´ 180	Ä 196	Ô 212	ä 228	ô 244
5	21	% 37	5 53	E 69	U 85	e 101	u 117	133	• 149	¥ 165	µ 181	Å 197	Õ 213	å 229	õ 245
6	22	& 38	6 54	F 70	V 86	f 102	v 118	134	– 150	¦ 166	¶ 182	Æ 198	Ö 214	æ 230	ö 246
7	23	' 39	7 55	G 71	W 87	g 103	w 119	135	— 151	§ 167	· 183	Ç 199	215	ç 231	247
8	24	(40	8 56	H 72	X 88	h 104	x 120	^ 136	152	¨ 168	¸ 184	È 200	Ø 216	è 232	ø 248
9	25	) 41	9 57	I 73	Y 89	i 105	y 121	137	™ 153	© 169	185	É 201	Ù 217	é 233	ù 249
<LF> 10	26	* 42	: 58	J 74	Z 90	j 106	z 122	Š 138	š 154	ª 170	186	Ê 202	Ú 218	ê 234	ú 250
11	<ESC> 27	+ 43	; 59	K 75	[91	k 107	{ 123	139	155	« 171	» 187	Ë 203	Û 219	ë 235	û 251
<FF> 12	28	, 44	< 60	L 76	\ 92	l 108	| 124	140	156	172	188	Ì 204	Ü 220	ì 236	ü 252
<CR> 13	29	- 45	= 61	M 77	] 93	m 109	} 125	141	157	- 173	½ 189	Í 205	221	í 237	253
14	30	. 46	> 62	N 78	^ 94	n 110	~ 126	142	158	® 174	190	Î 206	Þ 222	î 238	þ 254
15	31	/ 47	? 63	O 79	_ 95	o 111	127	143	Ÿ 159	¯ 175	¿ 191	Ï 207	ß 223	ï 239	ÿ 255

The ID# for the Windows 3.1 Latin Character Set is (19U).
The Windows 3.1 Latin symbol set is recommended to use when running Microsoft Windows 3.1 / Windows 95.

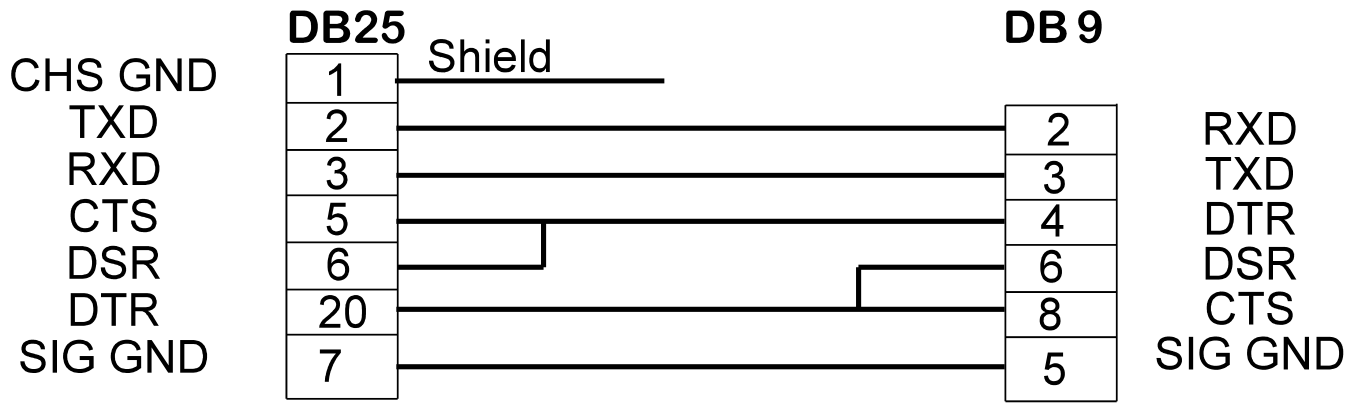
5K-LE CHARACTER SET

(Modeled after PC - 8 Character Table)

0	16	<SP> 32	0 48	@ 64	P 80	` 96	p 112	Ç 128	É 144	á 160	▒ 176	└ 192	208	224	240
1	17	! 33	1 49	A 65	Q 81	a 97	q 113	ü 129	æ 145	í 161	▓ 177	┴ 193	209	225	± 241
2	18	" 34	2 50	B 66	R 82	b 98	r 114	é 130	Æ 146	ó 162	▓ 178	┬ 194	210	226	242
3	19	# 35	3 51	C 67	S 83	c 99	s 115	â 131	ô 147	ú 163	┤ 179	├ 195	211	227	243
4	20	$ 36	4 52	D 68	T 84	d 100	t 116	ä 132	ö 148	ñ 164	┤ 180	─ 196	212	228	244
5	21	% 37	5 53	E 69	U 85	e 101	u 117	à 133	ò 149	Ñ 165	181	┼ 197	213	229	245
6	22	& 38	6 54	F 70	V 86	f 102	v 118	å 134	û 150	ª 166	182	198	214	µ 230	246
7	23	' 39	7 55	G 71	W 87	g 103	w 119	ç 135	ù 151	º 167	183	199	215	231	247
8	24	(40	8 56	H 72	X 88	h 104	x 120	ê 136	ÿ 152	¿ 168	184	╚ 200	216	232	º 248
9	25	) 41	9 57	I 73	Y 89	i 105	y 121	ë 137	Ö 153	169	╣ 185	╔ 201	┘ 217	233	• 249
<LF> 10	26	* 42	: 58	J 74	Z 90	j 106	z 122	è 138	Ü 154	170	║ 186	╩ 202	┌ 218	234	• 250
11	<ESC> 27	+ 43	; 59	K 75	[91	k 107	{ 123	ï 139	¢ 155	½ 171	╗ 187	╦ 203	▉ 219	235	251
<FF> 12	28	, 44	< 60	L 76	\ 92	l 108	| 124	î 140	£ 156	172	╝ 188	╠ 204	■ 220	236	252
<CR> 13	29	- 45	= 61	M 77	] 93	m 109	} 125	ì 141	¥ 157	¡ 173	189	═ 205	221	237	253
14	30	. 46	> 62	N 78	^ 94	n 110	~ 126	Ä 142	158	« 174	190	╬ 206	222	238	254
15	31	/ 47	? 63	O 79	_ 95	o 111	127	Å 143	ƒ 159	» 175	┐ 191	207	▌ 223	239	255

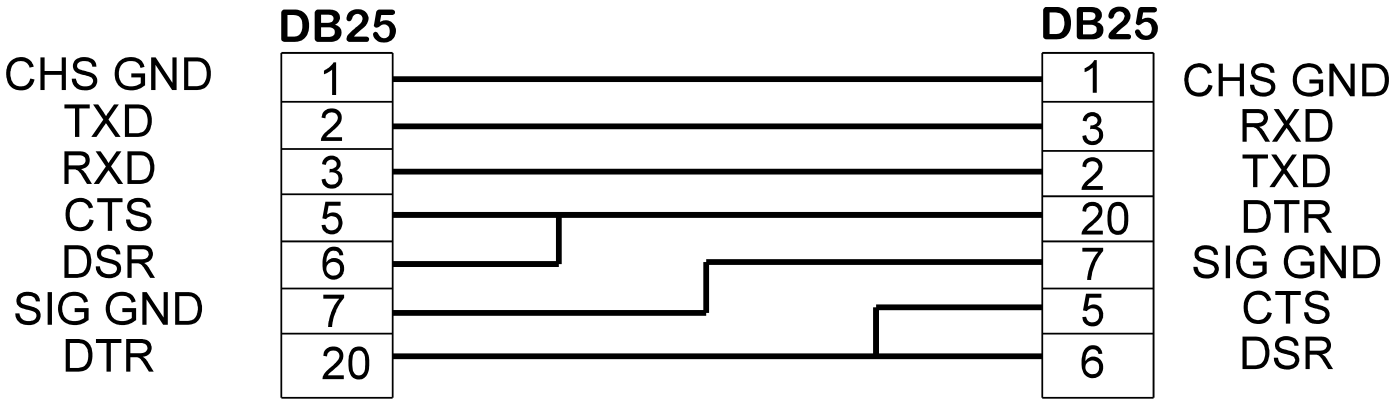
The ID# for the PC 8 Character Set is (10U).

Serial Communication (RS - 232 C) connections



PRINTER

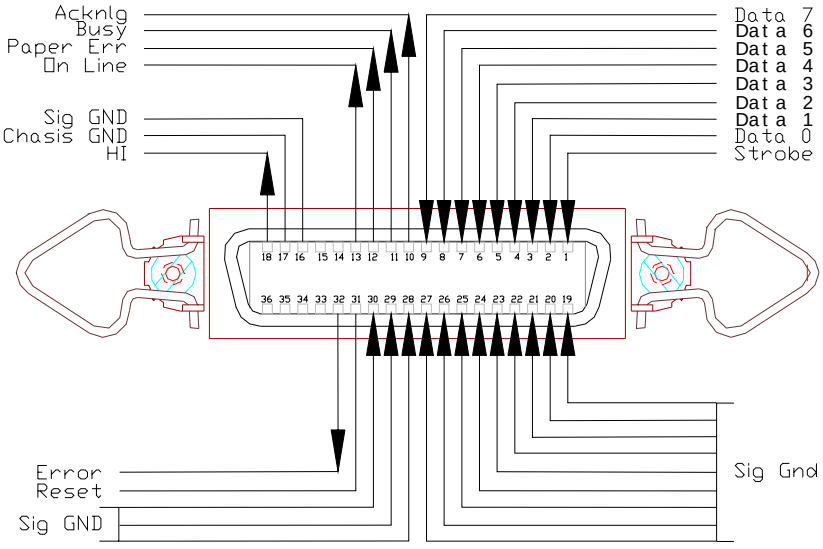
COMPUTER



Parallel Communication (Centronics Cable)

The parallel interface port is a standard 36 pin Amphenol type with two metal wire retaining clips.

Pin #	Signal	Direction	Description
1	Strobe	In	A Low pulse causes the printer to read one byte of data
2-9	Data 0 -Data7	In	Data lines. Data 0 is the LSB
10	Acknowledge	Out	The printer sends a low pulse to indicate that it has accepted a byte of data and is ready for more.
11	Busy	Out	The printer sends a High to indicate that it cannot receive data to data entry, a full buffer.
12	Paper Error	Out	The printer sends a High logic level to indicate to the computer that it is out of paper.
13	On Line	Out	The printer sends a High logic level to indicate to the computer that it is in an On Line status.
16	Sig Gnd		These pins are tied to signal ground
17	Chassis Gnd		Chassis Ground
18	HI	Out	The printer outputs a High logic level (+5V through a 2.2K ohm resister) on this pin while it is turned on.
19-30	Sig Gnd	In	Signal Interface Ground
31	Reset /Input Prime		The printer may not work when this line is low.
32	Error	Out	The printer sends a Low logic level to the printer to indicate that it is in an error state.



Software Table of Contents

MICROSOFT WINDOWS™ APPLICATIONS SOFTWARE DRIVER INFORMATION 3

Software Interface sample: **Access 2000 for Window 98 ..... 4**

Software interface sample: **ARCLIST ver. 2.06 ..... 7**

Software Interface sample: **Bulk Mailer + 4.20i for Windows 8**

Software interface sample: **DATAPERFECT ver 2.2 ..... 10**

Software Interface sample: **dBASE IV ver 1.0 ..... 11**

Software interface sample: **FILE EXPRESS ver. 5.1 ..... 12**

Software interface sample: **IBM FILING ASSISTANT 14**

Software Interface sample: **Microsoft FoxPro 2.6 for Windows 15**

Software interface sample: **LOTUS 123 Release 3.1+ for DOS 21**

Software interface sample: **MailMiser ver 1.2 ..... 22**

Software interface sample: **MULTIMATE 23**

Software interface sample: **MyMailList ver. 1.9.7 ..... 24**

Software Interface sample: **Postalsoft Desktop Mailer ver. 5.0 for Windows 25**

Software Interface sample: **PreSort Pro by MCS version 2.4 for Windows 27**

Software interface sample: **RAPIDFILE 29**

Software interface sample: **REFLEX ver. 2.0 ..... 30**

Software interface sample: **WORDPERFECT 6.0 ..... 31**

Software interface sample: **WORDSTAR FOR DOS ver. 7.0 ..... 32**

POWER PRINT for the MACINTOSH 33

POWER PRINT for the MACINTOSH (Continued) **34**

Computer setup sample: **IBM Mini's (System 34, 36, 38) & AS400 ..... 35**

Software interface sample: **MICROSOFT WORD FOR WINDOWS ver. 2.0 ..... 36**

Software interface sample**:** **Word97 for Windows 95 ..... 37**

Software Interface sample: **Word 2000 for Window 98 ..... 40**

Software Setup

This section will help in setting up the Address Printer to run programs in Windows 3.1 and DOS. Some assistance is given for use on the Apple and Macintosh. If you are using Windows 95 / 98 or Window NT 4.0 use the Bryce driver installation disk that is included in the accessories kit.

Generic Software Driver Information

Most software packages allow you to select or setup a printer driver. Use one of the following printer drivers.

Dumb Printer

Generic Printer

Typewriter

Plain Vanilla

Teletype

TTYCRLF Printer

TTYCR Printer (This requires the Setup Menu CR = CR + LF option to be turned on)

If none of these choices are available one of the following may work:

HP Laserjet Series II or any Laserjet II listed (excluding Postscript)

HP Laserjet 4

DOS Text Printer

The MODE COMMAND must be set as stated below!!!

Type the MODE command at the DOS prompt or add the MODE command to the AUTOEXEC.BAT file. The AUTOEXEC.BAT will load the command when the computer is first booted up.

Example:

When printing to the parallel port load MODE LPT1:,,P

When printing to the serial port load MODE COM1:9600,N,8,1,P

(**NOTE:** The printer ports or parameter settings may vary from the preceding MODE command examples. If using DOS version 5.0, a **„B** may be substituted for the **„P)**

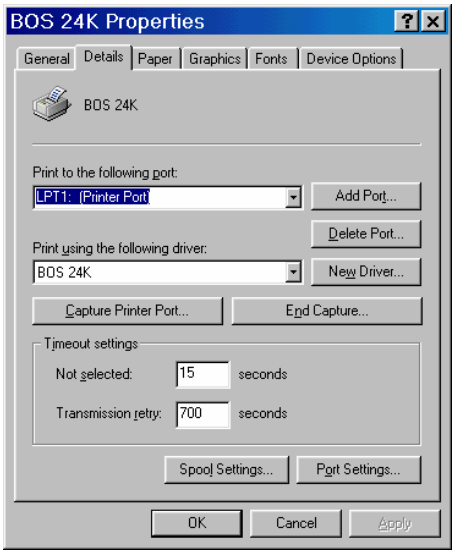
MICROSOFT WINDOWS ™ Applications Software Driver Information

Microsoft Windows Software Driver Information

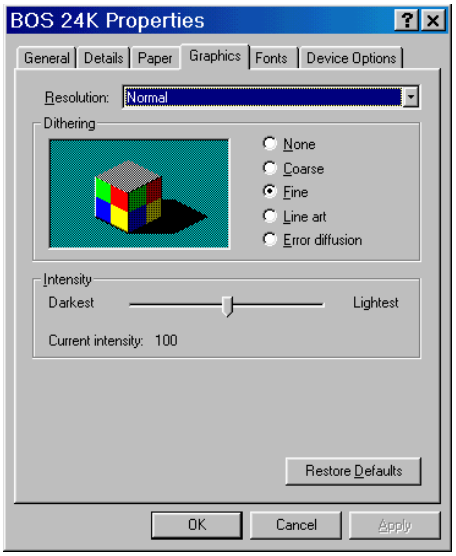
When using Microsoft Windows 3.0 or later, select the Generic / Text printer driver.

Microsoft Windows95/98 Software Driver Information

Changing the Print Driver Properties might have to be made for the printer to work with different software packages in the Windows95/98 operating environment.



1. Click START ... SETTINGS... PRINTERS
2. Highlight the printer driver being used (usually 3K/5K/7K, 9K-L/13K or 24K/30K)
3. Click FILE ... PROPERTIES
4. Click on the DETAILS tab
5. Click on PORT SETTING ... make sure that none of the boxes are checked. Click on OK
6. Click on SPOOL SETTING… check the box for "Print directly to printer".
7. Check the box for "Disable bi-directional support for this printer". Click on OK.
8. Check the GRAPHICS tab when pictures are missing or printed out incorrectly. **Note**: Some software may require clicking on an OPTIONS button to open a dialog box of check boxes options.



9. Click on APPLY once settings are correct.

Updating the Printer Software

Periodically updates of printer drivers are made available on the World Wide Web. To obtain updates go to http://www.BryceUSA.com.

Software Interface sample: **Access 2000 for Window 98**

Select **Open** from the **FILE** menu.

Select the **.mdb** database file or compatible database file.

Select the **OK** button from the box.

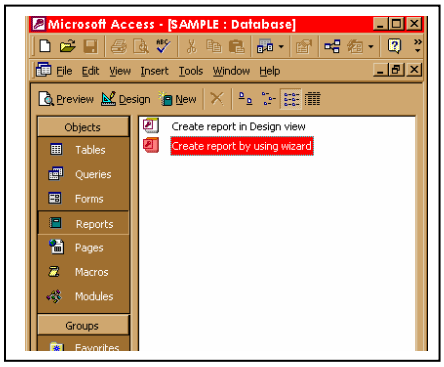
The window with the database name will appear.

Select **REPORTS** from the side tab from the box.

Select the **Create reports by using wizard** to insert the fields for printing. Select the **FINISH** button after going through and selecting all the options.

The REPORT WIZARD will display the Records from the selections made. The tabular layout is recommended to select as the easiest to modify and redesign.

Select **Design View** from the **VIEW** drop down menu.

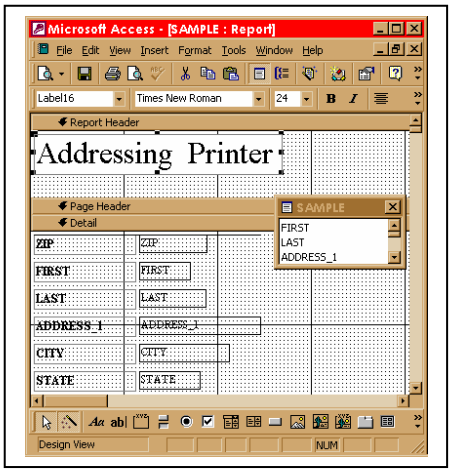


Click on the label box to remove or modify the text. Use the Header and Footer to print a return address or logo on all pages.

Go to the **Details** section in **DESIGN VIEW**. Click the mouse on the Label & Text Boxes. The modifier boxes will appear. Now move and change the Label & Text Boxes on the form. **Note**: To hide the Label Boxes in front of the Text Boxes right click the mouse to bring a drop down box. Select the **FORMAT TAB**. Set the **Visible** property to **No**. Delete the Label Boxes the in front of the Text Boxes if they are not required.

After the Text Boxes have been moved and the Label Boxes have been hidden or deleted then check the results by selecting **Layout Preview** from the **VIEW** menu. Make any necessary adjustments by switching back to **Design View**.

In **Design View** make a right click of the mouse on the form to bring up a **PROPERTIES** dialog box.



Select the **Properties** option. A **SECTION DETAIL** dialog box will appear. Change the **Force New Page** option to **After Section**. Now only one record will print on a page.

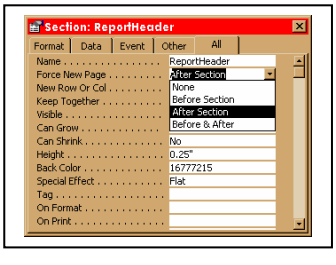
Select from the **VIEW** menu **Layout Preview**. Only one record per page will appear. Use the arrows on the Data Control to scroll through the records.

Select from the **FILE** drop down menu the option **Page Setup**. A PAGE SETUP dialog box will appear.

Select the **PAGE** tab from the **PAGE SETUP** Dialog box. Select the **PRINTER** button to verify the correct printer driver is selected.

Select the correct size of the media.

Select the **MARGINS** tab and set the margins to move the records on the piece.



Click on the **OK** button when the settings look correct.

The view from **Page Layout** will show how the records will look when printed out.

Select from the **FILE** drop down menu **Print** when the Page Layout is correct. Note: Spacing in Access is fixed between the fields in the Text Boxes.

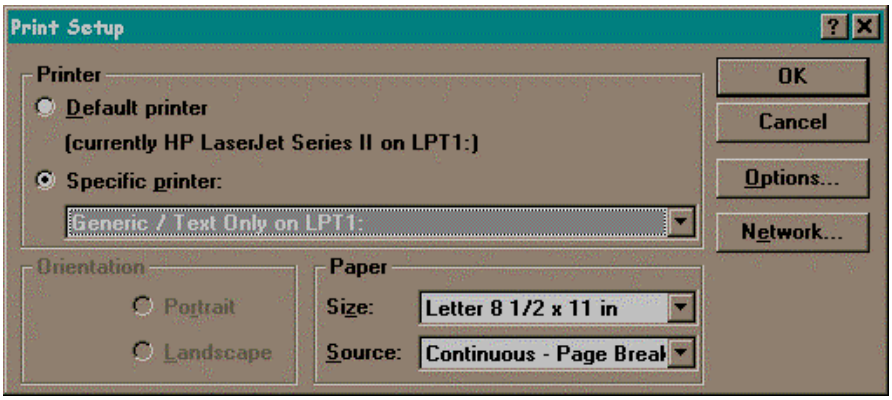
Software Interface sample: **AccuZIP 6 for Windows**

Installation:

Follow the instructions in the User Manual to install Accuzip 6.

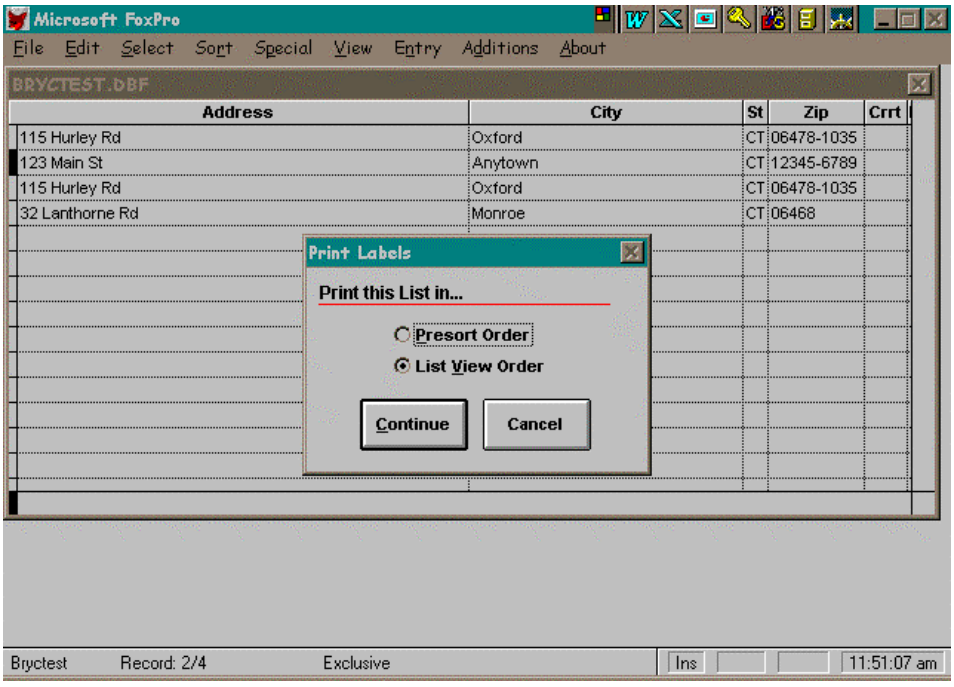
Choose **Print Setup** from the File Menu.

The **Print Setup** window will be displayed. Select the Generic/Text Only printer.
Click on **OK**



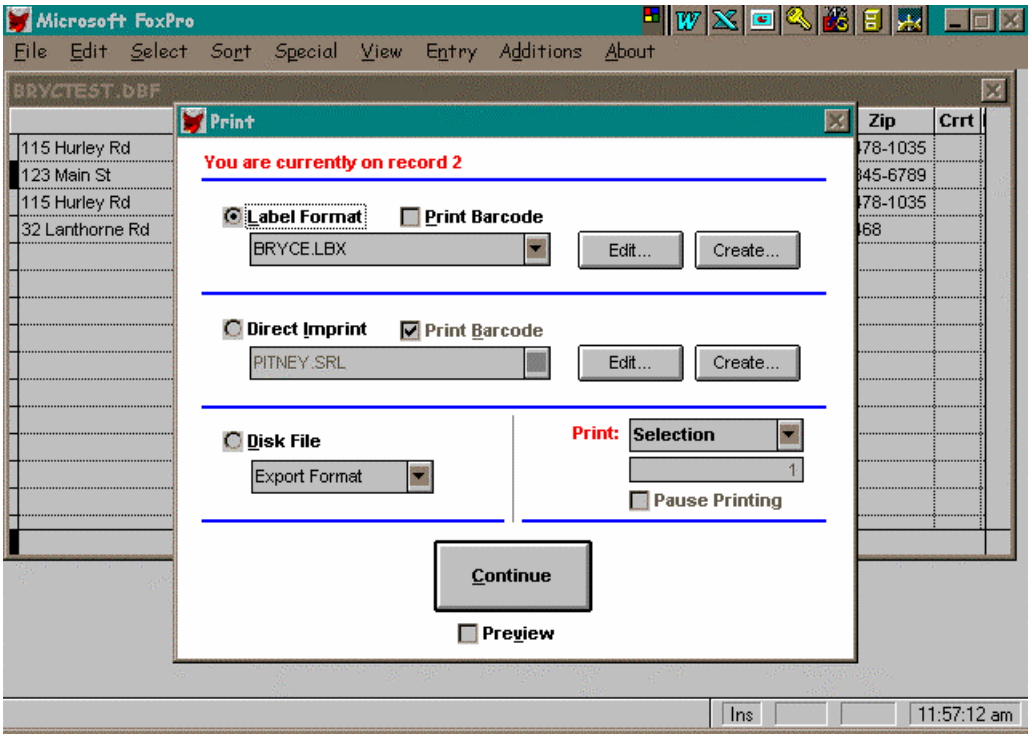
Choose **Print** from the File Menu, then select **Labels**.

The **Print Labels** window will be displayed.
Select the desired option
Click on **Continue**.



The **Print** window will be displayed. Select **Label Format**.
Ensure that there is not a check in the **Print Barcode** box.
Select the BRYCE.LBX label template.

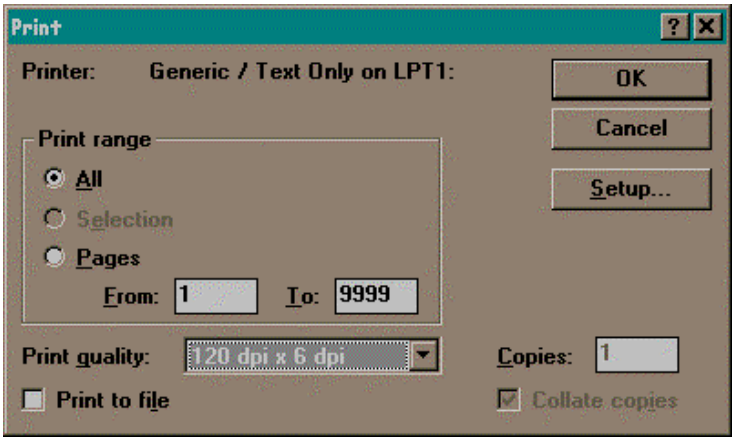
Select **Continue**.



Another **Print** window will be displayed.
Ensure that the Generic/Text Only is the selected printer.
Choose the desired **Print range**.
NOTE:

- Set the address setup option, in the Bryce setup menu, to 8 lines.
- Ignore the print quality selection that is displayed in the Print quality section of the Print window. The print quality you desire can be set in the Bryce Main Menu under the **Print Quality** option.

Select **OK** to print to your Bryce Address printer.



Software interface sample: **ARCLIST ver. 2.06**

The Arclist program must be configured for use by the Bryce BOS 5K-LE in terms of both printer type selection and output type selection.

You must first identify the Bryce BOS 5K-LE printer.

Run Arclist program called CONFIG.
Choose PRINTER from menu, then choose CUSTOM from menu, then type Bryce BOS 5K-LE as printer. When this information is entered, a PORT menu will be displayed.
Select appropriate port, and characteristics if using a serial port.

NOTE: The BOS 5K-LE must have the same port characteristics as the computer port.

All special entries (line feed, fonts, etc.) should be left blank.
Select SAVE from menu, then choose OKAY from menu.
Select QUIT from menu, then choose SAVE from menu.

Next identify the address format.

Run ARCLIST.
Select LABELS from menu, then choose PRINT from menu, use the arrow keys to select a format.
Select Bryce BOS 5K-LE .
Enter data according to the table below.

Title: Bryce BOS 5K-LE
Label Type: envelope
Pitch: pica
Font: Normal
Line Feed: Normal
Left Margin: 0
Label width in chars: 42
Lines per label: 8
Top Margin: 0
Labels Down: N/A
Lines Between Labels: N/A
Labels Across: N/A
Space Between Labels: N/A

Criteria: All
Index: Record
Order: Ascending
Printer: Bryce BOS 10K

Select ALL or Nth
Select INDEX or PRESORT
Select DEFAULT from Printer Menu
Select NON-STOP or PAUSE
Select GO from Printer menu

Print Mailing Labels

NOTE: To pause the program while printing, press ESC on the Computer Keyboard instead of taking the BOS 5K-LE Off Line.

Software Interface sample: **Bulk Mailer + 4.20i for Windows**

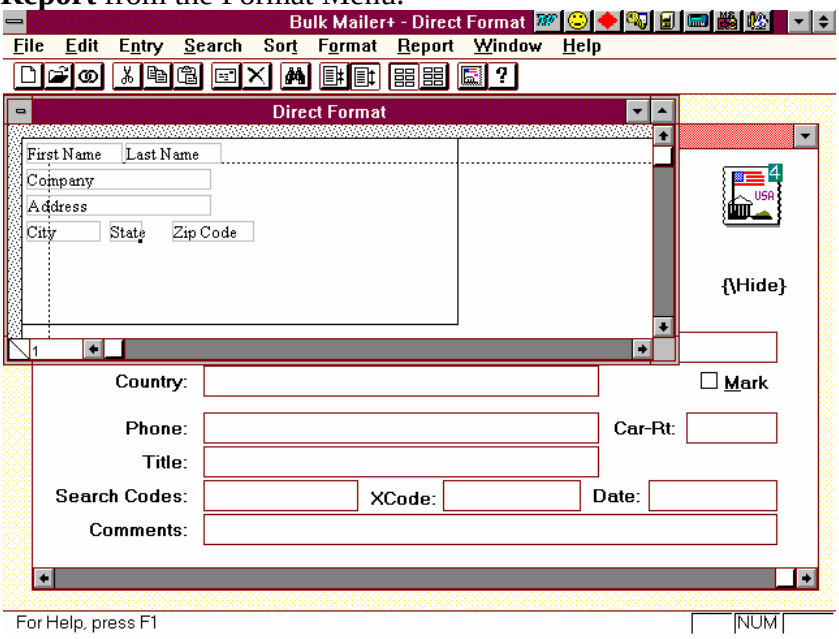
Installation:

Follow the instructions in the User Manual to install Bulk Mailer.

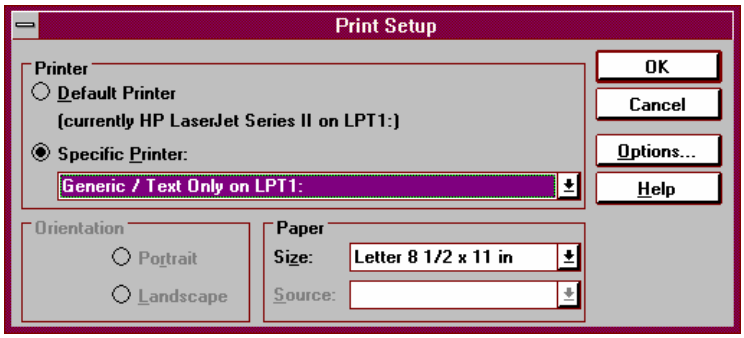
Select **New** from the File Menu.
Follow the instructions in the Users Manual on how to enter your address information.
When you are ready to print addresses;

Select **Direct Format** from the Report Menu.

Select **Edit Report** from the Format Menu.
Move the fields to the upper left corner of the mail piece, as shown below.
Select **Preview Report** from the Format Menu.

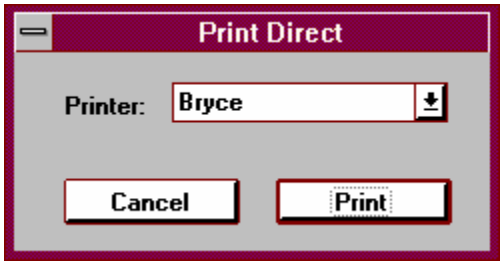


Select **Print Setup** from the File Menu.
Select the **Generic / Text Only** printer driver, as shown below.
Click on **OK**.



continued on next page

Select **Print Direct** from the File Menu.
Select the **Bryce printer** from the Print Direct Window (shown below).



Set the ADDRESS SETUP, located in the Bryce printers Setup Menu, to 8 lines.

You are now ready to print.

Software interface sample: **DATAPERFECT ver 2.2**

Refer to the DataPerfect Reference Manual to setup a database for printing labels.

While using DataPerfect, a label must be defined in order to print your addresses on the BOS 5K-LE.

Be sure the cursor is in the panel from which you want to run the report.

Press **Report/Export (Shift-F7)** to access the report list.

With the cursor on Built-In Short Reports, press **Insert** to create a new report.

Select **Edit Report Name (9)**, then enter the desired report name (for example, BOS 5K-LE Label). If you want to send report to the BOS 5K-LE, select **Printer On/Off (1), then type in the appropriate port number.**

Select **Print Margins (7)**, then enter the following data:

Top	**0**
Bottom	**0**
Left	**0**
Text Lines	**7**

Select **Edit Report Form (8).**

Move the cursor to the Report Body section of the report form, then press **Report Options (Ctrl-F7)**.

Select **Labels (5)**.

Enter **1** as the number of labels across the page.

Enter **45** as the width in characters of each label.

Enter **7** as the number of lines per label.

The code for the label specifications is displayed in the Report Body section.

Use **Select (F4)** to select the fields needed for the labels. Be sure that the alphanumeric fields are edited to include the ;;T print mode indicator. (See Field Format, Print Mode Indicators in your Reference Manual).

Press **Exit (F7)** or **Save (F10)** to save the report form when you have completed selecting fields. You will return to the Report Menu.

Set the **ADDRESS SETUP** in the BOS 5K-LE SETUP MENU to **7 lines**.
You are now ready to print addresses on your BOS 5K-LE.
Press Report/Export (Shift-F7) to run the report.

Software Interface sample: **dBASE IV ver 1.0**

Upon entering dBASE, the **dBASE Control Panel** will be displayed.
To Create a Label, move cursor to the **labels** column and select **<create>**.
A label will be displayed on the screen.
Press **ALT & D**, to pull down the Dimensions menu, the following settings should be entered;

Width of label	**45**
Height of label	**Set to the number of lines in your address**
Indentation	**0**
Lines between labels	**1**
Space between columns	**1**
Columns of labels	**1**

Press **ESC**
Add fields to label using the instructions at the bottom of the screen.
Once you have completed your layout, press **ALT & L** to pull down the Layout menu and **select;**

Save this label design.

When this label format is saved, it will be displayed as a file under the labels column in the control panel.
To Print labels;
Activate a data file;
Select the label file you created under the labels column;
Follow menu directions to print.

NOTE: dBase IV does a CR & LF before each address, therefore you must do the following:

IF SEVEN LINE ADDRESS, DO A FF BEFORE THE START OF THE NAME,
Example <CR> <LF>
CHR(12)+NAME

Software interface sample: **FILE EXPRESS ver. 5.1**

When using **FILE EXPRESS**, A label must be defined in order to print your addresses on the BOS 5K-LE.

Select **Label Printing (6)** from the Main Menu.
Select **Design a New Label** from Label Menu.
Enter Data into the Label Spacing Screen according to the following table:

1	**How many labels across the page (1-5)**	**1**
2	**Spaces across from label to label (10-500)**	**n/a**
3	**Lines down from label to label (1-999)**	**7**
4	**Printable lines on each label (1-250)**	**7**
5	**Characters per line on each label (10-999)**	**45**
6	**Tab position to first label (1-99)**	**1**

When you have completed entering this data, **press F10 to accept these changes.**
A Test Printer Screen will be displayed, if you would like to test this setup press Y, if not press N.

File Express will display a label box on the screen the size that was specified on the Label Spacing Screen.

Type **ALT-F** to pop up field window.
Move highlight bar to the field you would like on the first line of your label.
Press Enter twice, to accept it as a field only.
Repeat the above sequence to place your fields in the appropriate locations.
When you are finished designing your label, **press F10**.

The Record Selection Screen will be displayed. Press **Enter**.

The Label Sub Menu will be displayed.
Select **S** (to select save option).
Press **Enter** (to confirm you want to save).
Type in a name for your label.
Press **Enter.**
Type a description for you label.
Press **Enter (to save your label layout)**

While you are in the Label Sub Menu, now would be a good time to specify a printer.

Press **7** to update printer options.
Press **Enter**
Press **ALT-S** to select a printer definition file.
Select **POSTSCRIPT - Generic.**, and press Enter.

CONTINUED ON NEXT PAGE

FILE EXPRESS ver 5.1 continued

The Printer Option Menu will be displayed, **enter the following data:**

1	**Printer Definition File**	**PostScript**
2	**Printer Port <1>, <2>, <3>, or <D>efault (LPT1)**	**Enter the appropriate port #**
3	**Line Spacing**	**6**
4	**Pitch**	**R** for regular
5	**Printer Initialization String**	**D** for Default
6	**Printer Reset String**	**D** for Default

Press **F10**
Select **Record#**
Select **Yes**

Set the Address Setup Menu on the BOS 5K-LE to 7 lines.

You are now ready to print addresses on your BOS 5K-LE printer.

Software interface sample: **IBM FILING ASSISTANT**

Refer to the IBM Filing Assistant manual to setup a database for printing labels. The program uses pre-set printer specifications which are defined.

From the main menu choose **PRINT**

From the print menu choose **PREDEFINED PRINT SPEC**.

Create a new print spec called BRYCE

Set up the format for the output of the address as follows, or alter it to better suit your database. (A proper address format, as per USPS guidelines, is listed in Appendix H). The **X** and the **+** symbols are an important part of the print specifications.

Name: X
Title: X
Company: X
Address: X
City: + State: + Zip: +

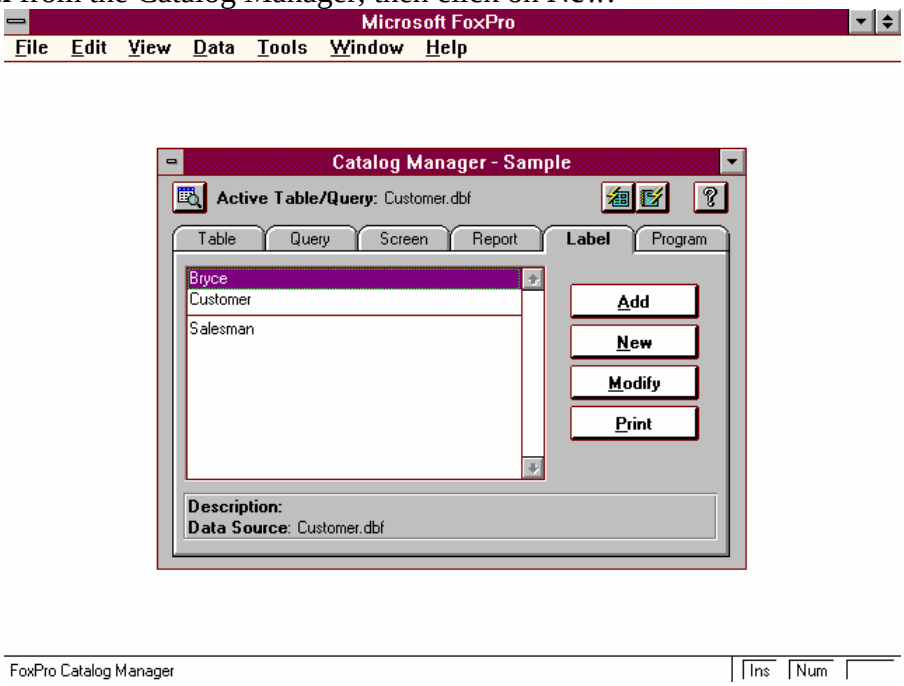
Using the Bryce print spec, the program should now be able to output your address list to the Bryce Machine.

Software Interface sample: **Microsoft FoxPro 2.6 for Windows**

Installation:

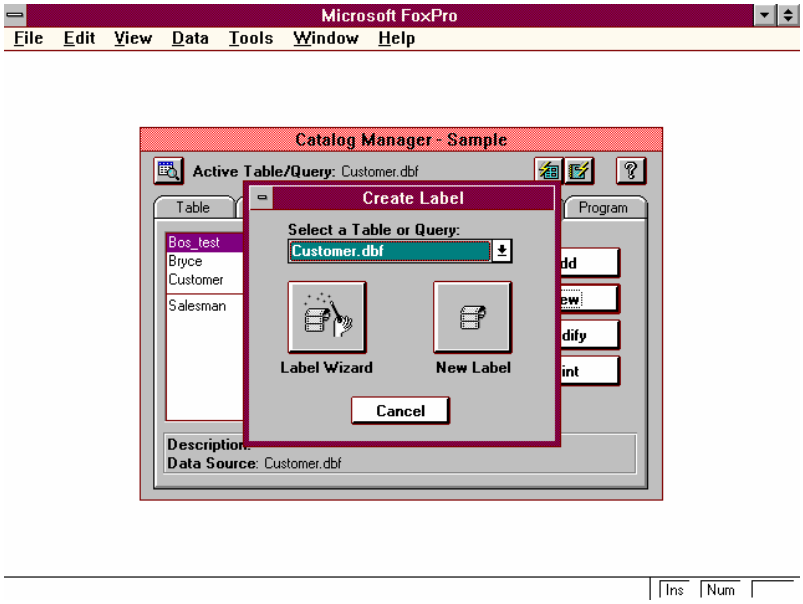
Follow the instructions in the User Manual to install Microsoft FoxPro.

Choose **Label** from the Catalog Manager, then click on **New**.



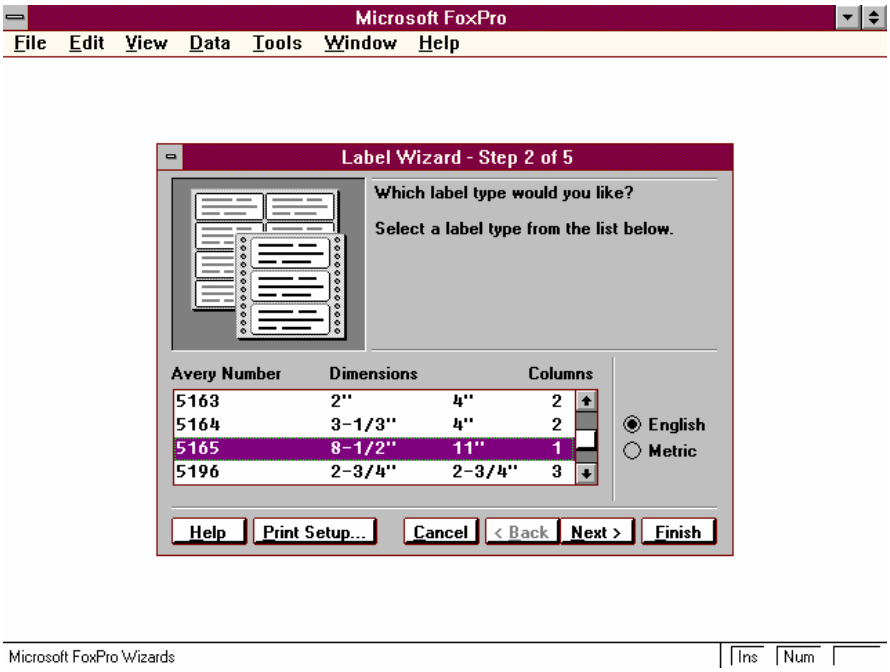
The **Create Label** window will be displayed. Select the table or query you wish to create a label for.

Click on **Label Wizard**

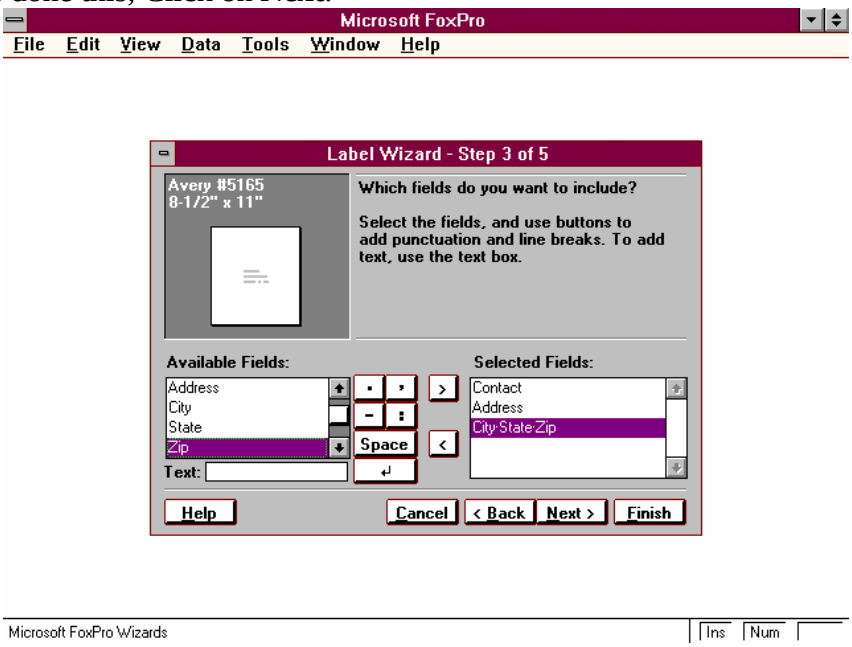


continued on next page

The **Label Wizard - Step 2 of 5** window will be displayed.
Select **Avery #5165 (8½ x 11)**
Click on **Next**.


Microsoft FoxPro
File Edit View Data Tools Window Help
Label Wizard - Step 2 of 5
Which label type would you like?
Select a label type from the list below.
Avery Number Dimensions Columns
5163 2" 4" 2
5164 3-1/3" 4" 2
5165 8-1/2" 11" 1
5196 2-3/4" 2-3/4" 3
English
Metric
Help Print Setup... Cancel < Back Next > Finish
Microsoft FoxPro Wizards
Ins Num

The **Label Wizard - Step 3 of 5** window will be displayed. Select the fields you wish to include in your label.
Insert a space between the City and State fields, and also between the State and Zip fields, as shown below.
When you have done this, Click on **Next**.

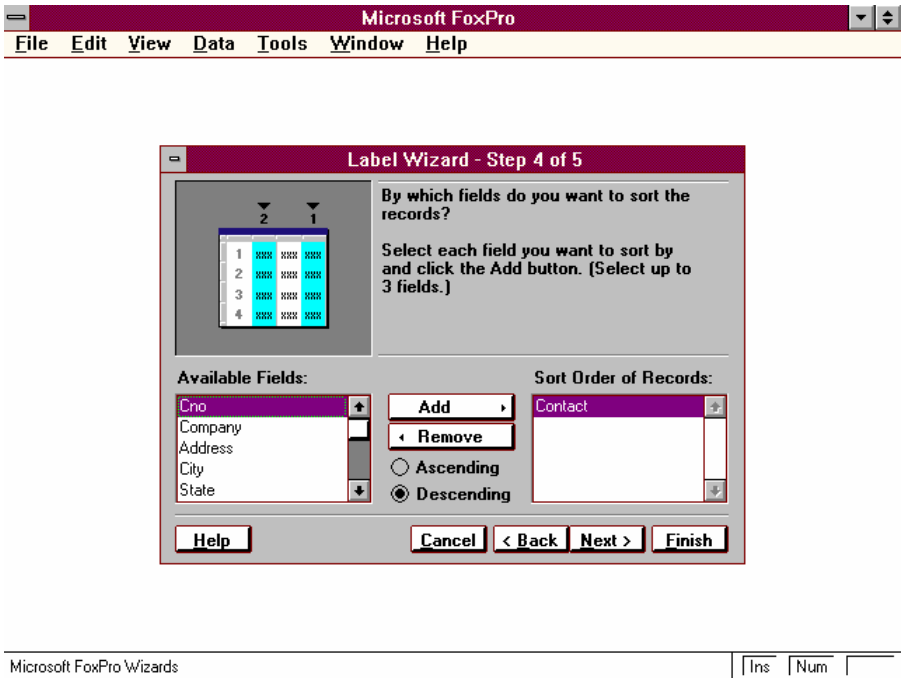


continued on next page

The **Label Wizard - Step 4 of 5** window will be displayed. Select the field or fields you wish to sort by.

Note: If Descending is selected, the mail pieces will be stacked in ascending order when they exit the Bryce printer.

Click on **Next**.



The **Label Wizard - Step 5 of 5** window will be displayed.

Select **Save Label for Later Use**.

Select **Finish**

The **Save As** window will be displayed.

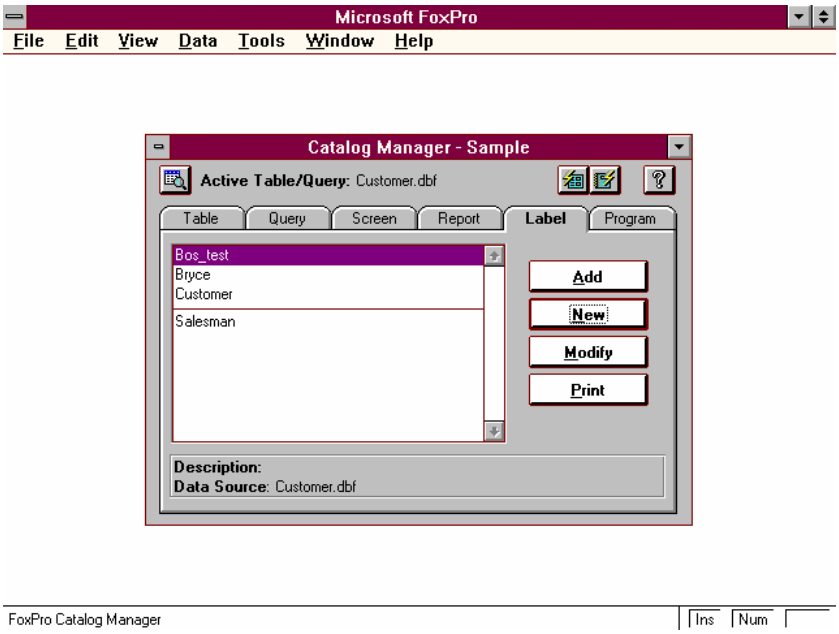
Enter a filename for the label file. In our example, we have selected the filename BOS_TEST.lbx.

Select **OK**.

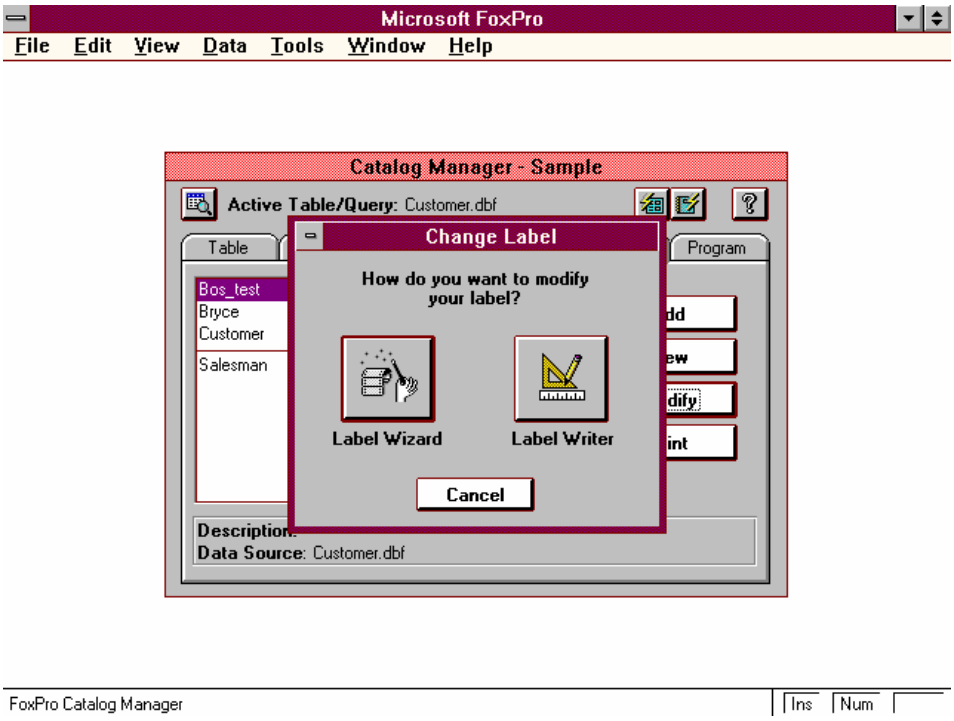
This will bring you back to the Catalog Manager. Select the file Bos_test.

Click on Modify. (see next page)

continued on next page

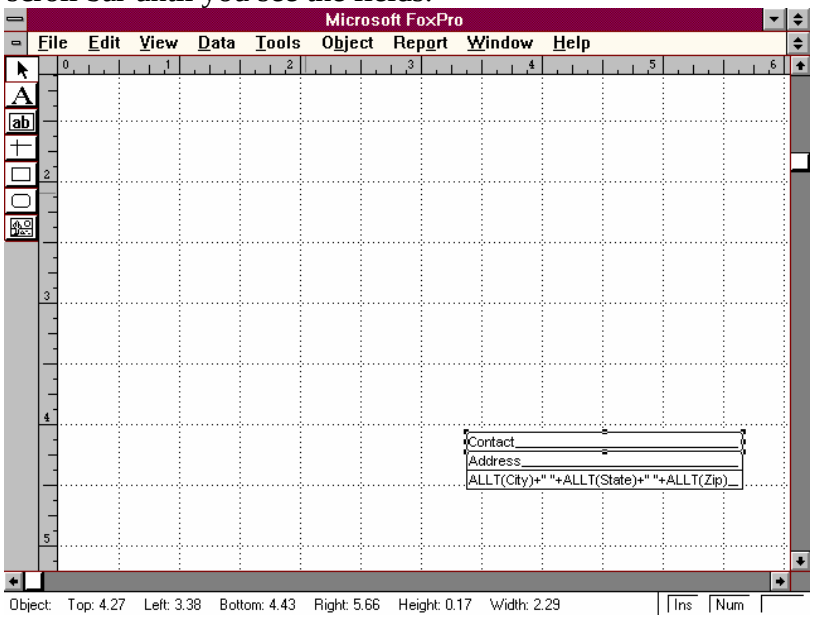


The **Change Label** window will be displayed.
Click on **Label Writer**.

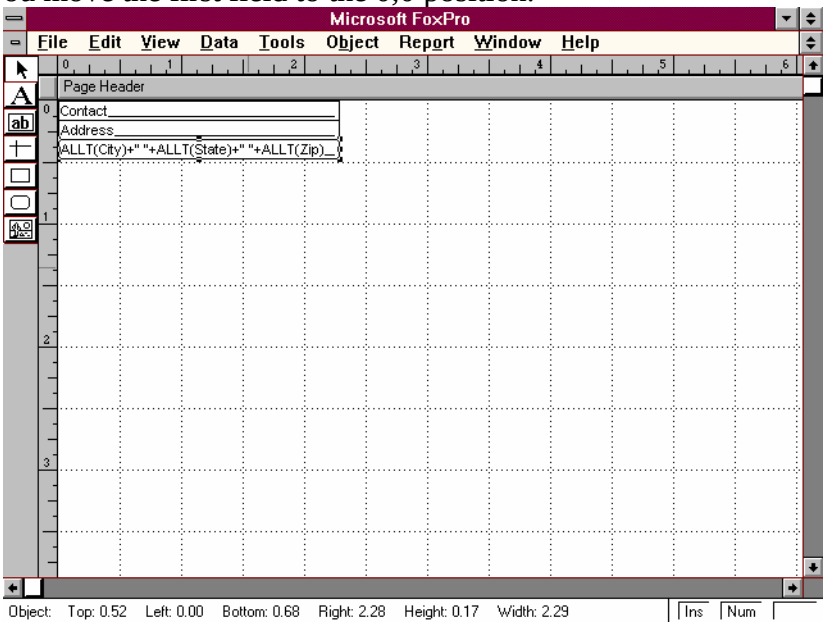


continued on next page

The **Microsoft FoxPro Label Edit** window will be displayed.
No fields will appear on the display, this is because the fields are located towards the bottom of the label.
Click on the side scroll bar until you see the fields.


Microsoft FoxPro
File Edit View Data Tools Object Report Window Help
Contact
Address
ALLT(City)+" "+ALLT(State)+" "+ALLT(Zip)
Object: Top: 4.27 Left: 3.38 Bottom: 4.43 Right: 5.66 Height: 0.17 Width: 2.29
Ins Num

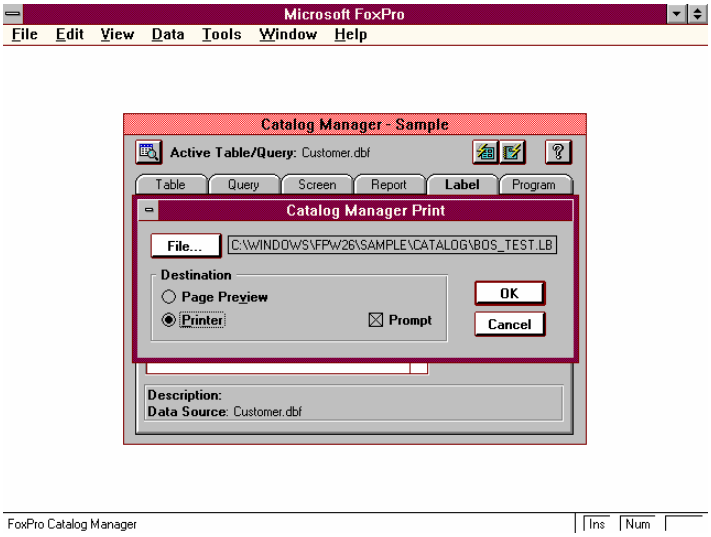
Move the fields to the top left of the label, as shown below.
Make sure that you move the first field to the 0,0 position.


Microsoft FoxPro
File Edit View Data Tools Object Report Window Help
Page Header
Contact
Address
ALLT(City)+" "+ALLT(State)+" "+ALLT(Zip)
Object: Top: 0.52 Left: 0.00 Bottom: 0.68 Right: 2.28 Height: 0.17 Width: 2.29
Ins Num

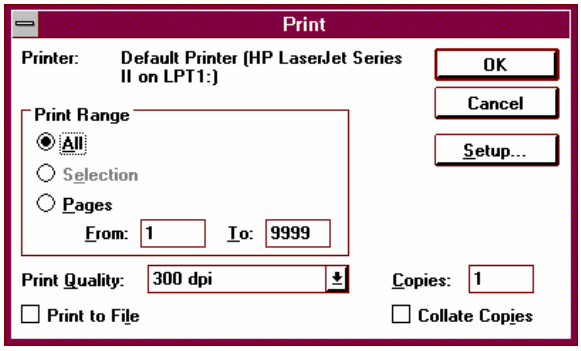
Select **Save** from the File Menu.
Select **Close** from the File Menu.

continued on next page

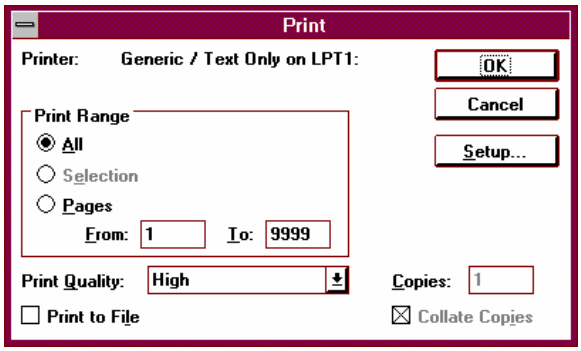
Select **Print** from the Catalog Manager.
The Catalog Manager Print window will be displayed.
Select **Printer** as the destination.
Click on **OK**.



The **Print** window will be displayed.
Click on **Setup**.



Select the **Generic/Text Only** printer driver.
Click on **OK**



Set the ADDRESS SETUP, located in the Bryce printers Setup Menu, to 66 lines.
You are now ready to print.
Click on **OK**.

Software interface sample: **LOTUS 123 Release 3.1+ for DOS**

Before running 123, the Bryce printer must be installed by choosing **"GENERIC" "no backspace"** for printer specification.

Run 123

Address should be entered in a **single** column, all addresses in file must have the same number of lines (add blank lines if required).

Set the ADDRESS SETUP in the BOS 5K-LE menu to equal the number of lines each record. If page breaks are used, set ADDRESS SETUP in the BOS 5K-LE menu to 1 line more than the number of lines in each record.

Turn **AUTO LINE FEED ON** in the 5K-LE Setup Menu.

Select **PRINT**
Select **PRINTER**
Select **OPTIONS**
Select **OTHER**
Select **UNFORMATTED**
Select **ADVANCED**
Select **AUTOLF**
Select **YES**
Select **QUIT**
Select **QUIT**
Select **GO**

Software interface sample: **MailMiser ver 1.2**

Refer to the MailMiser User's Guide to setup a database for printing labels.
While using MailMiser, a label must be defined in order to print your addresses on the BOS 5K-LE.

Select **System/Printer Functions (9)** from the Main Menu.
The System/Printer Function Menu will be displayed.
Select **Printer Selection (3)**.
The Print Selection Menu will be displayed.
Select **BRYCE BOS 12K.**
You will be returned to the System/Printer Functions Menu.
Enter data according to the following table.

1.	Function "Typing" Keys	
2.	Rebuild Indexes	
3.	Printer Selection	**Bryce BOS 12K**
4.	Reset Printer	**Yes**
5.	Special Printer Codes	
6.	Default Directory	
7.	Color/Monochrome	enter monitor type
8.	Delivery Point Barcode	**NO**
9.	Printer passes for Barcode	**1**
0.	Exit to Main Menu	

Select **Exit to Main Menu (0)**, after you have entered the above data.
The MailMiser Main Menu will be displayed.
Select **Label/Envelope Sizes (8)**.
Select **Choose from standard label sizes (1)**.
Select **Direct Image Printer, 1 up, 0 margin**.

MailMiser will ask you if you want to Print a Test Pattern, select **NO** at this time, this will return you back to the Main Menu.
Select **Label/Envelope Sizes (8)**.
Select **Edit current label size (2).**
Enter data according to the following table.

Label Description	**Direct Image Printer, 1 up, 0 margin**
Label Width	**4.5**
Left Margin	**0**
Inches from top of 1 label to top of next label	**1.167 (for a 7 line address)** **approx. .167 per line, at 6 lpi**
Number of Labels across	**1**
Number of Spaces Between Labels	**0**
Lines Per Inch	**6 lpi (default)**
Characters Per Inch	**10 cpi (default)**

Select **Print Labels from the Main Menu** to print addresses.
NOTE: Select NO when the program asks you if you want to print Postnet Barcode.

Software interface sample: **MULTIMATE**

An address may be printed using Multimate Merge Print.

Refer to MULTIMATE and create a merge file. The following is an example of a typical merge document for addressing:

name
title
company
address
city state zip

From the main menu, select merge print, When the DOCUMENT PRINT OPTION screen is reached, set up the following section of parameters as shown below:

Enhanced [N]/ Draft [Y]	Y
Print Action Table (PAT)	TTYCRLF
Pauses Between Pages [N or Y]	N
Print Comments [N or Y]	N
Print Document Summary [N or Y]	N
Print This Screen [N or Y]	N
Justification [N or Y or (M)icro]	N
Lines Per Inch [6 or 8]	6
Paper Length (lines per page)	8

The option listed on the document Print Option screen which are not listed above are either not applicable to printing addresses or are specific to your particular installation.

Software interface sample: **MyMailList ver. 1.9.7**

Addresses may be printed on the **BOS 5K-LE** using **MyMailList**.

After entering your data:
Press **F3**, the cursor will move into the **Print Format** window.
Select **3 1/2 x 15/16 labels**
1 label across
0 left margin
1 copy

NOTE: MyMailList does not allow you to create a custom label size, therefore you have two choices;

1. 3 1/2 x 15/16 labels - this limits you to 6 lines per address and 35 characters per line.

2. Envelope - this also limits you to 6 lines per address, and pauses the printer after each address.

Press **F4**, the cursor will move into the **Print** window.
Enter the Start and Stop Data as required.
Set **ADDRESS SETUP** on the BOS 5K-LE to **6 lines**.
Press **F10 to Print.**

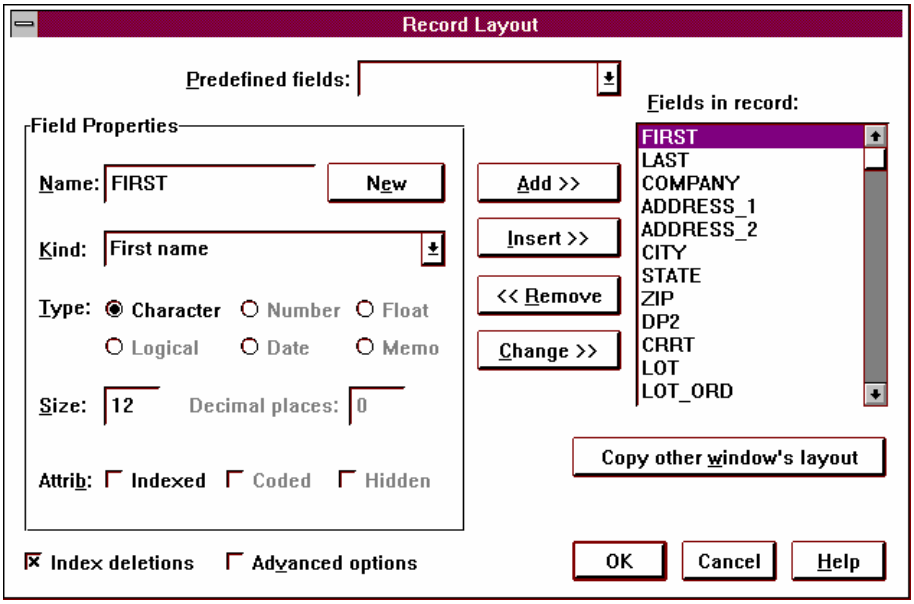
MyMailList is set to print to whatever printer you have connected to Parallel Port #1 (LPT1). If your BOS 5K-LE is not connected to LPT1, press Ctrl-P to view the Printer Choice Menu., and select the correct port.

Software Interface sample: **Postalsoft Desktop Mailer ver. 5.0 for Windows**

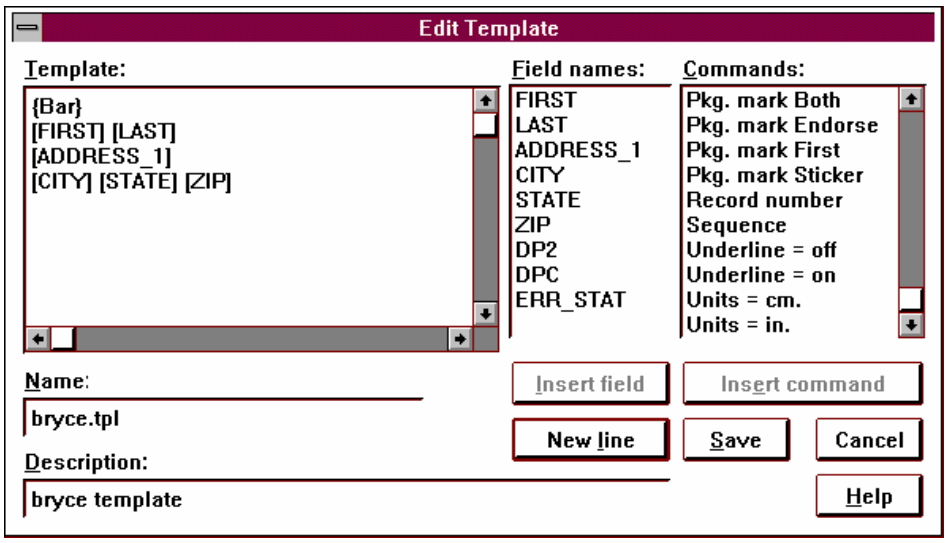
Installation:

Follow the instructions in the User Manual to install Postalsoft Desktop Mailer. Install the Bryce 10K printer driver that is supplied with Postalsoft Desktop Mailer.

Select **New** from the File Menu.
Select the required fields. (See the new record layout example below.)

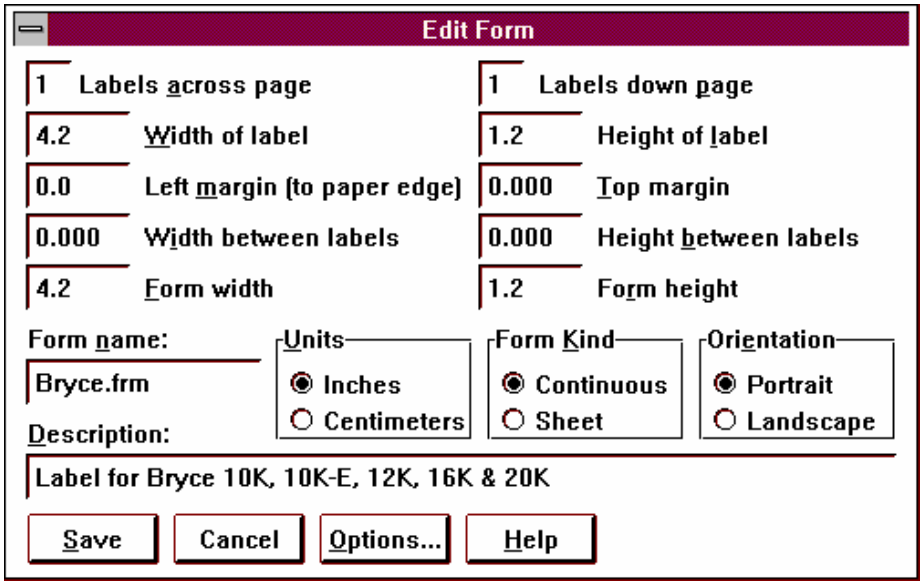


When the data is inserted into your database, you must select a template.
Select **Choose Template** from the Print Menu.
Select **New.**
In the example below, a template named bryce.tpl has been created.



continued on next page

When the template is created, you must choose a form.
Select **Choose Form** from the Print Menu.
Select **New** from the Choose Form for Printing Menu.
Enter the parameters into the **Edit Form** window as shown below.



The next step is to select a printer.
Select Choose Printer from the Print Menu.
Select **Bryce 10K on LPT1** (LPT1 is used as an example, the actual printer port that you have the Bryce 10K assigned to in Windows will be displayed here.)
Click on OK

Set the ADDRESS SETUP, located in the Bryce printers Setup Menu, to 8 lines.

You are now ready to print.
Select **Print Labels** from the Print Menu.

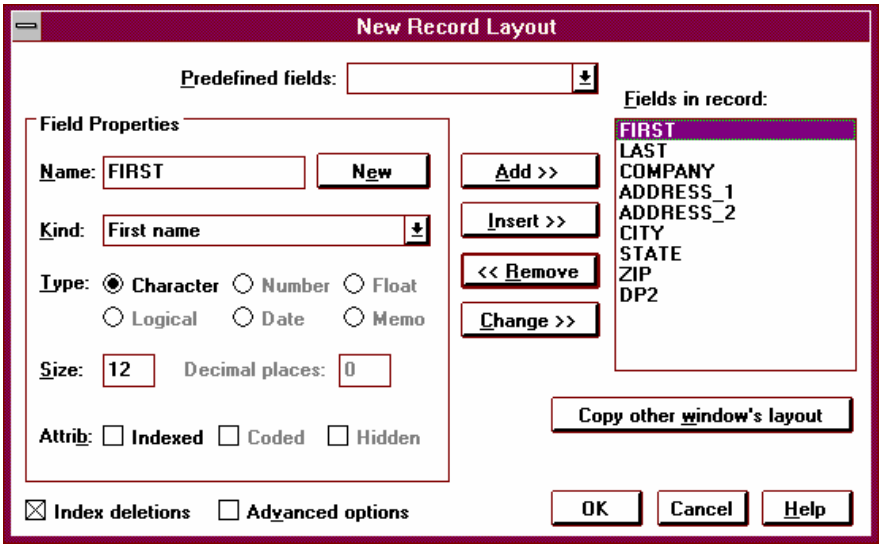
Software Interface sample: **PreSort Pro by MCS version 2.4 for Windows**

Installation:

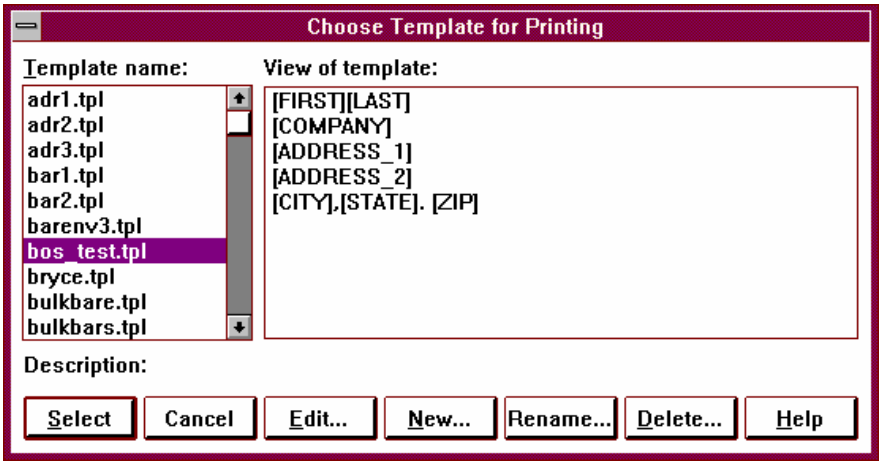
Follow the instructions in the User Manual to install PreSort Pro. Install the Standard/Text only printer driver that is supplied with PreSort Pro.

Select **New** from the File Menu.

Select the required fields. (See the new record layout example below.)

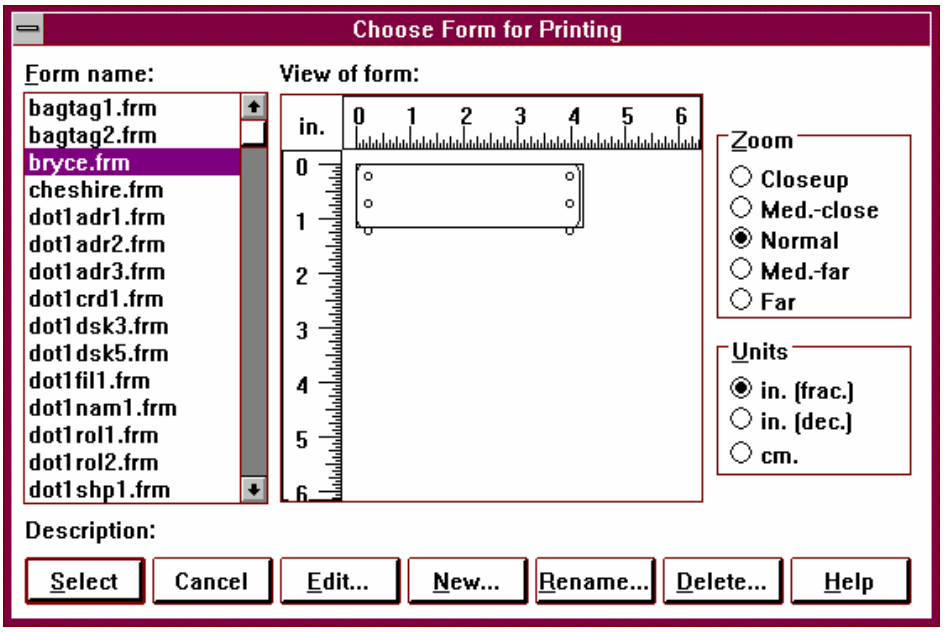


When the data is inserted into your database, you must select a template.
Select **Choose Template** from the Print Menu.
In the example below, a template named bos_test.tpl has been created. Notice that there are no printer control codes displayed at the beginning or end of the template.

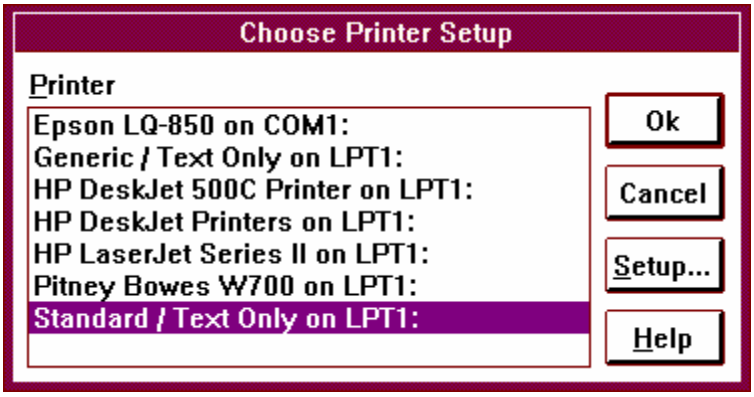


continued on next page

When the template is created, you must choose a form.
Select **Choose Form** from the Print Menu.
Select **bryce.frm** from the Choose Form for Printing Menu (shown below).



The next step is to select a printer.
Select Choose Printer from the Print Menu.
Select **Standard/Text Only**, (as shown below).
Click on OK



Set the ADDRESS SETUP, located in the Bryce printers Setup Menu, to 8 lines.

You are now ready to print.
Select **Print Labels** from the Print Menu.

Software interface sample: **RAPIDFILE**

Before running RAPID FILE, a printer driver must be loaded. This is done by running RAPID FILE's Printer program from DOS as explained in the RAPID FILE manual.

The printer file to select is called **GENERIC**, and must be set up as one of the printer devices with appropriate I/O port settings.

From within RAPID FILE when printing addresses:

1. Select FILE from the main menu
2. Select **RETRIEVE FILE or CREATE** (If you choose to create, enter data)
3. Select **LAYOUT**
4. Select **LAYOUT TYPE**
5. Select **LABEL**
6. When asked if you want to design a label - Select **YES**

   A LABEL WILL BE DISPLAYED IN THE CENTER OF THE SCREEN

7. Press **F10**
   Select **SHOW FIELD**, Fields will be displayed on the right side of the screen.
   Select **FIELD**
   - Use arrows to set field width.
   - Use arrows to drag field into position.

   REPEAT Step 7 until all fields are placed
8. Press **F9** to Implement
9. Select **PRINT** from main menu
10. Select **DESTINATION**
11. Select BEGIN PRINTING

Software interface sample: **REFLEX ver. 2.0**

Referring to the REFLEX manual, run REFLEX, load a file, or create a file.

Create the fields required.

Select **Reports & Labels** from the **Views Menu**.
This will bring you to the **Report Design** display.

Select **Make Labels** from the **Report Menu**.

Select **Customize Labels** from the **Report Menu**.

Set:	Label Width:	**45**
	Label Height:	**7**
	Lines between labels:	**0**
	Spaces between labels:	**0**
	Labels across page:	**1**
	Compress blank lines:	**Yes or No**
	Left margin:	**0**
	Setup String:	**(blank)**

Select **Proceed**.

Place cursor at the beginning of the first line of the label.

Enter field names into label.

Select **Local Properties** from the **Report Menu** when you are done entering the field names into the label.

Set the field widths as required, set State field width to two (2) characters.

Click on State and Zip fields, and move to create a space between the City and State field, and the State and Zip field.

You are now ready to print addresses on your BOS 5K-LE.

Select **Print** from the **Utilities Menu**.

Set Address Setup on the BOS 5K-LE to **seven (7) lines**.

Select **Print to Printer**.

Select **Proceed**.

Software interface sample: **WORDPERFECT 6.0**

Addresses may be printed with WORDPERFECT 6.0 using **merge printing**. This requires the creation of a **primary** and a **secondary** file. Refer to your WORDPERFECT manual for instructions.

The following is an example of a typical merge **primary** file for addressing:

{FIELD}1"
{FIELD}2"
{FIELD}3"
{FIELD}4"
{FIELD}5"

The following is an example of a typical **secondary** file for addressing:

John Doe{END FIELD}
123 Main Street{END FIELD}
Anytown, CT. 12345-6789{END RECORD}

Before performing the actual merging of data from your secondary file, several options **must** be chosen:

Set Margins	**Top**	**0"**
	Bottom	**0"**
	Left	**0"**
	Right	**0"**

You may now merge the two files.

From the Tools menu, select **Merge**
Select **Run**
Enter Form filename (Primary File)
Enter Data filename (Secondary File)
Select **Merge**

From the File menu, select **Print/Fax**
Select **DOS Text Printer**
Select **Edit**, and insure correct port is selected for the DOS Text Printer

You may now print address lists on your BOS 5K-LE Print Station.

Software interface sample: **WORDSTAR FOR DOS ver. 7.0**

From the **File Menu** select **New**.

From the **Layout Menu** select **Page**.

Enter the following settings:

Odd Offset	**0.00**
Even Offset	**0.00**
Top	**0.00**
Bottom	**0.00**
Header	**0.00**
Footer	**0.00**
Orientation	**Portrait**
Page Length	**1.34**
Paper Bin	**Leave Blank**

Select **OK**.

The screen should now display the following information:

.poo	.00"
.poe	.00"
.mt	.00"
.mb	.00"
.hm	.00"
.fm	.00"
.pl	.00"
.pl	1.17"

Enter in the data for each record. When a record is complete, press **ENTER** until a page break is displayed on the screen (a solid horizontal white line).
Once the page break is displayed, you can enter the next record.
Repeat this process to enter all records.

To Print:

Set the BOS 5K-LE **Address Setup** to eight (8) lines of address.
Select **Change Printer** from the **File Menu**.
Select **Draft Printer**.
Select **OK**.
Select **Print** from the **File Menu**.

POWER PRINT for the MACINTOSH

PowerPrint by GDT Softworks consists of software printer drivers and a high speed serial-to-parallel adapter which allows for a virtually transparent connection between your Macintosh and the BOS 5K-LE.

Installation:

Follow the instructions in the User Manual to install PowerPrint. Select the **LaserJet 4** printer driver to install for use with the BOS 5K-LE.

Activating Your Driver:

- Go to the Apple menu and select **Chooser**.
- Select the **LaserJet 4** printer driver.
- Click on the serial port to which you have the BOS 5K-LE connected, either the modem (phone) or printer icon.

NOTE: *If you are connecting your printer cable to the printer port, Appletalk must be set to "inactive".*

- Click on the box labeled **Cartridges**. A Cartridge Mapping window will be displayed. Map the following fonts:
  Mac Font called Courier to print as the HP Font Courier.
  Mac Font called Helvetica to print as the HP Font Arial.
  Mac Font called Times to print as the HP Font Times New.
- Click on **OK**.
- Close the Chooser by clicking on the close box in the upper left corner. The Address Printer is now configured to print with the PowerPrint driver.

Printing:

Go to the **Setup Menu** on the BOS 5K-LE and turn on **Auto Line Feed**.

While in an application, go to the **File** menu and select **Page Setup**. Select:
- Paper = **US Letter**
- Reduce or Enlarge = **100%**
- Page Orientation = **Portrait**
- Printer Effects = **Fractional Widths**

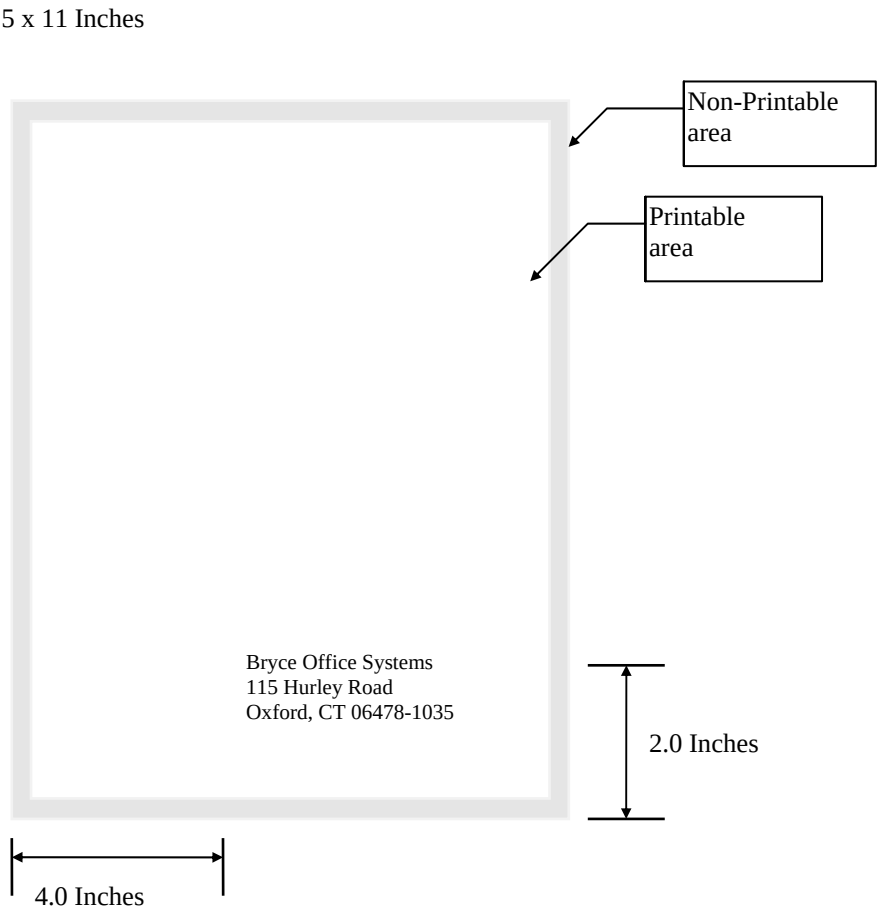
Click on **OK**

POWER PRINT for the MACINTOSH (Continued)

Page Setup:

- Select **Show** from the **Layout** menu, then select **Non-Printable** Area.
- Set page width to 8.5 Inches (215.9 mm).
- Set page length to 11 inches (279.4 mm).

Measure the position of your address from the bottom edge of the paper, just as you would from the bottom edge of your mail piece. See example shown below.



Go to **File** menu and select **Print**. Select:

- Print Mode = Draft
- Feed = Automatic

Click on **Print**.

Computer setup sample: **IBM Mini's (System 34, 36, 38) & AS400**

To use the BOS 5K-LE with any IBM minicomputer or mainframe, it is necessary to interface through some kind of protocol converter. This may be one of two types of systems; either an IBM compatible micro with an emulation card, or a stand alone protocol converter such as is available from Black Box Corp. in Pittsburgh, PA (i.e., model PQ-6 RO). In either case the installation is very similar.

1. The protocol conversion device must be connected to the IBM computer with the appropriate cable.

2. After deciding on a free work station address to be used for the BOS 5K-LE, the system configuration must be altered to setup the work station address and port as an IBM 5256 printer.

3. The emulation system must be setup at the same workstation address and must be setup for IBM Proprinter II emulation.

   For a system 36 installation, with IBM advanced emulation, the following is the correct procedure to follow on the PC:

   A. Boot the PC with DOS
   B. Running off the advanced emulation program disk, type "Config DP5250.dat"
   C. Select 2 Emulation sessions
   D. Select the appropriate keyboard
   E Set workstation addresses for the two sessions, as configured on the system 36
   F. Set 5256 Printer Emulation
   G. Select IBM Proprinter II
   H. Save profile data and exit

4. A procedure must be written and run which sets the printer port for the page length of 6 lines (BOS 5K-LE with LCD SETUP MENU to set up the ADDRESS SETUP to 6).

5. An RPG program will probably be necessary on the system 36 to produce a data format which is "one-up" label compatible.

6. You may now print address lists on your BOS 5K-LE.

Software interface sample: **MICROSOFT WORD FOR WINDOWS ver. 2.0**

Using you mouse Select FILE

Inside the pull down menu for File, Select NEW

Once New has been selected a pop up window will appear.

Scroll through the available documents using the down arrow, Select MAILLABL

Now Select OK

Now a new pop up window appears called Mailing Labels

Inside the Mailing Labels section, Select DOT MATRIX

Now another new pop up window appears called Dot Matrix Printer Label Sizes.

Scroll through the selection of product numbers for Avery Dot Matrix Labels,

Select 4600 ADDRESS

Then Select OK

Now another new pop up window appears called MicroSoft Word.

Select SINGLE LABEL

Now a new pop up window appears called Mailing Labels which depicts a sample label for six (6) lines.

Type data into each line of the label address, TAB to go to NEXT LINE

When address data is completely entered, Select DONE

To print the sample label, select FILE

Inside the pull down menu for File, Select PRINT SETUP

Now a new pop up window appears called Print Setup

Select GENERIC/TEXT ONLY ON LPT1

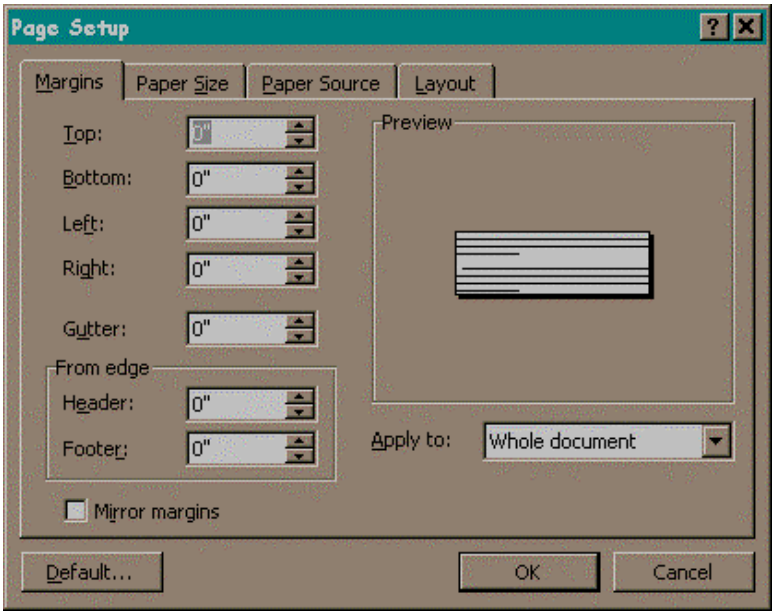
Select OK

Select FILE

Inside the pull down menu for File, Select PRINT

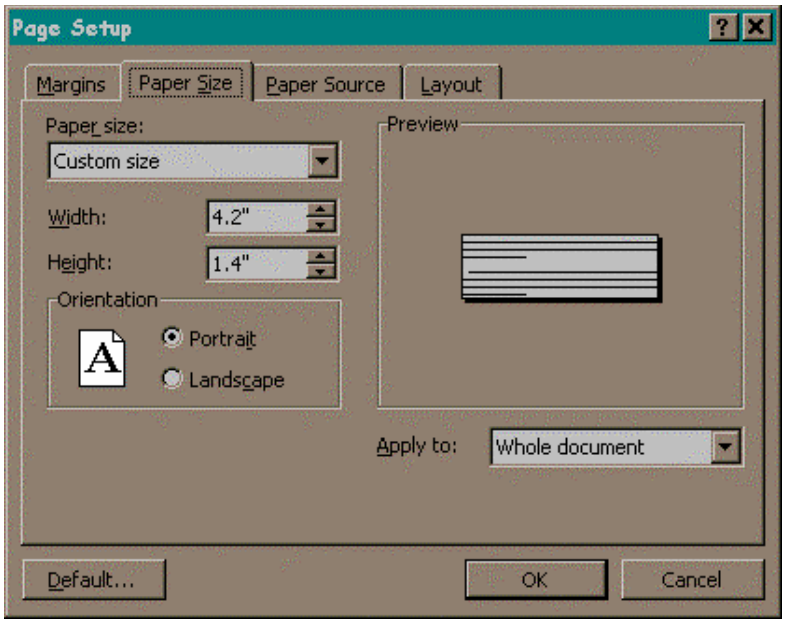
Software interface sample**:** **Word97 for Windows 95**

Select **Page Setup** from the FILE menu.
Select the **Margins tab**, and set ALL margins to zero (0)

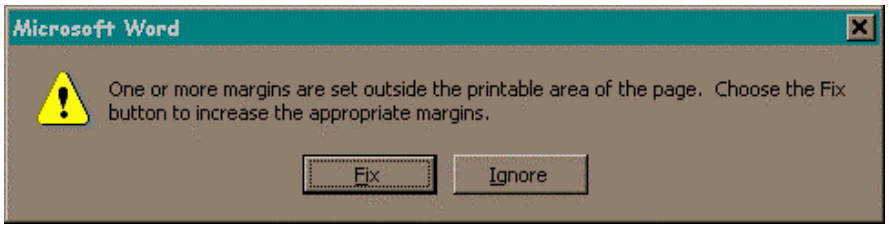


Select the **Paper size tab**, then select **Custom** from the Paper size text box.

Set the page width to 4.2”
Set the page height to 1.4”



Select OK. After you select OK, you may see a warning similar to the warning shown below. Click on the **Ignore** button.

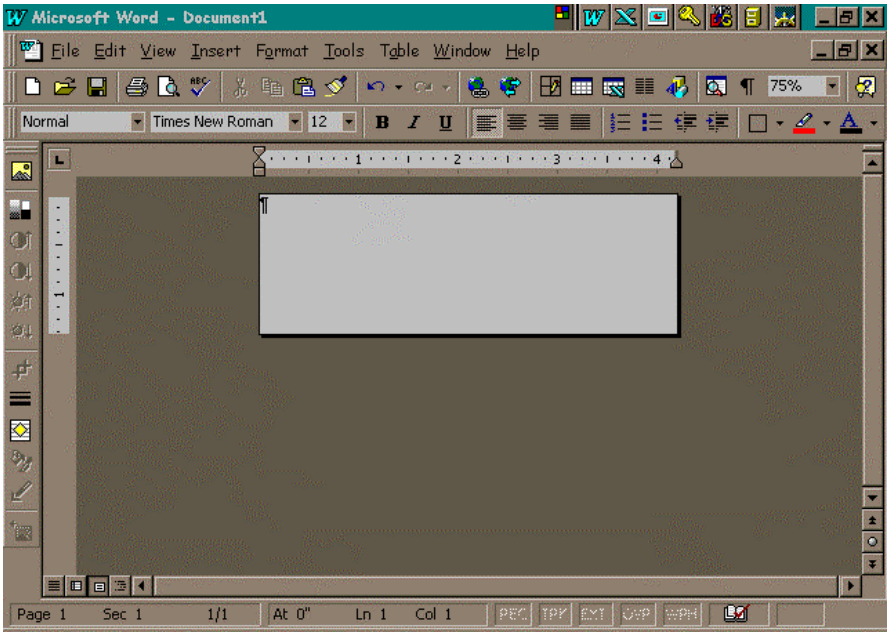

Microsoft Word
One or more margins are set outside the printable area of the page. Choose the Fix button to increase the appropriate margins.
Fix
Ignore

Select **Page Layout** from the VIEW menu, and your page should look similar to the example show below.

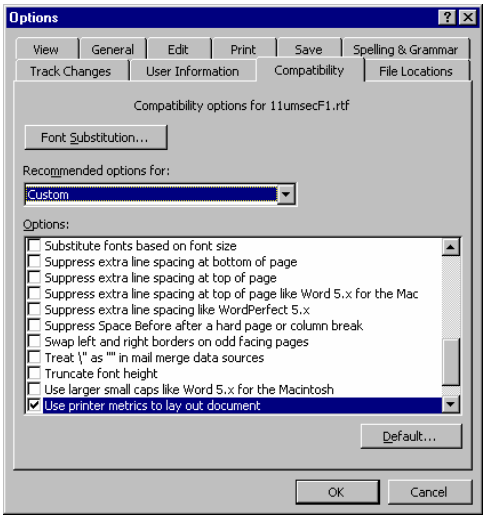
To print to the 5K-LE printer:

Note: Make sure that the ADDRESS SETUP option in the Bryce Setup Menu is set to Nine (9) lines or greater.

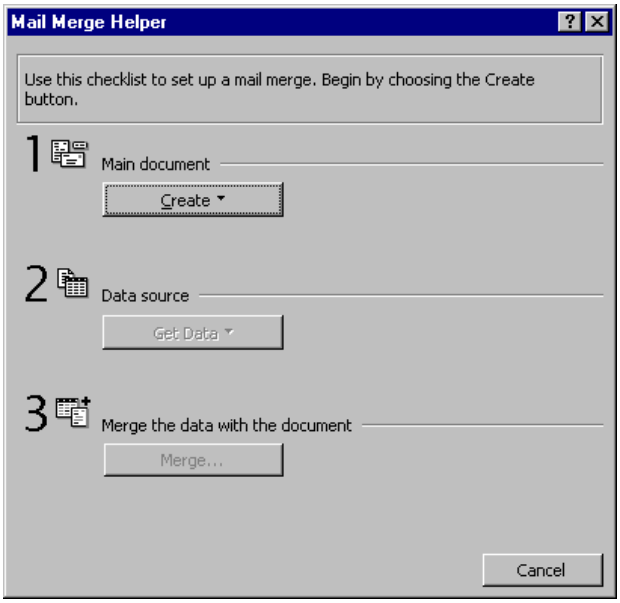
Select **Options** from the TOOLS menu.


Microsoft Word - Document1
File Edit View Insert Format Tools Table Window Help
Normal
Times New Roman
12
Page 1 Sec 1 1/1 At 0" Ln 1 Col 1

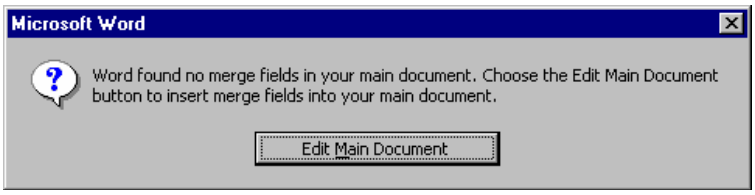
Select the **Compatibility** Tab from the OPTION dialog box. Select **Custom** from the RECOMMENDED OPTIONS FOR: pull down menu. Check the box next to the Use Printer Metrics to layout document. Verify that none of the other boxes have a check inside. The dialog box should look like the options box below.

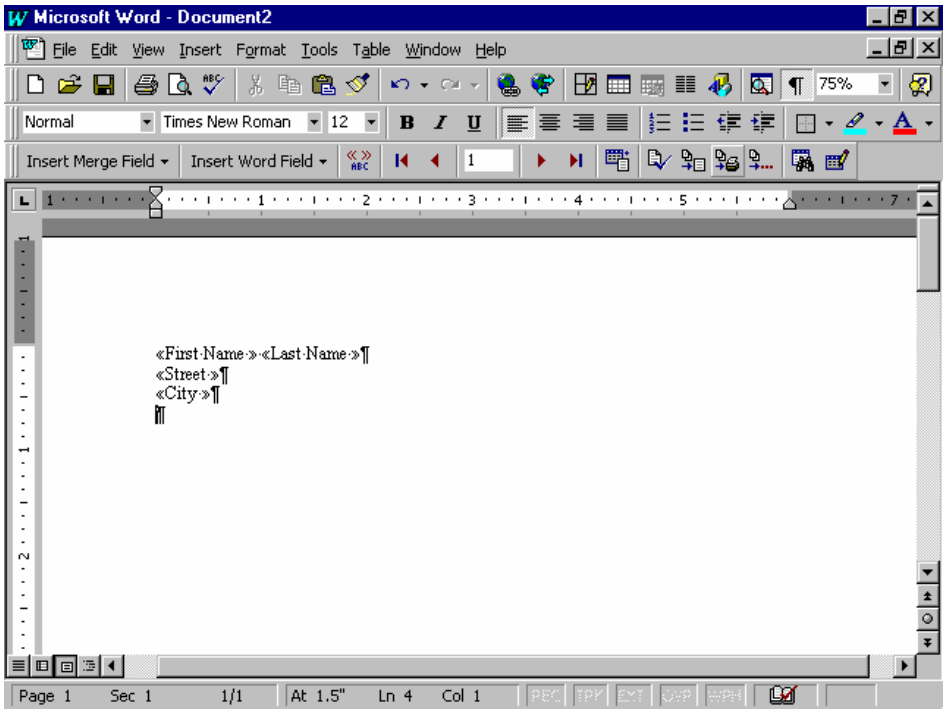

Options
View
General
Edit
Print
Save
Spelling & Grammar
Track Changes
User Information
Compatibility
File Locations
Compatibility options for 11umsecF1.rtf
Font Substitution...
Recommended options for:
Custom
Options:
Substitute fonts based on font size
Suppress extra line spacing at bottom of page
Suppress extra line spacing at top of page
Suppress extra line spacing at top of page like Word 5.x for the Mac
Suppress extra line spacing like WordPerfect 5.x
Suppress Space Before after a hard page or column break
Swap left and right borders on odd facing pages
Treat \" as "" in mail merge data sources
Truncate font height
Use larger small caps like Word 5.x for the Macintosh
Use printer metrics to lay out document
Default...
OK
Cancel

To make a Mail Merge select **Mail Merge** from the TOOLS menu.
The Mail Merge Helper window similar to the one to the right will appear. Select the **Create** pull down menu.
Select "**Form Letter**". Select the "**Active Window"** as the document that you wish to use**.**
Select "**Get Data**" from the Mail Merge Helper.
Select the file you wish to merge with your MS Word document. You will get a message similar to the one below stating "**Word found no merge fields in your main document"**. Click on the "**Edit Main Document**" button.
Move the cursor to the position you would like your address to begin.
Select "**Insert Merge Field**" from the toolbar.
Insert the fields you want on the form.
Select the Merge to Printer icon from the toolbar.
Your page should look similar tot he last example below.



The Print dialog box will appear.
Make sure that the **Generic/Text only** printer is selected.
Click **OK** to print.


Microsoft Word
Word found no merge fields in your main document. Choose the Edit Main Document button to insert merge fields into your main document.
Edit Main Document



Software Interface sample: **Word 2000 for Window 98**

Select **New** from the FILE menu. A NEW dialog box will appear on the screen.

Select **Blank Document** from the GENERAL tab.

Select **Page Setup** from the FILE menu. A PAGE SETUP dialog box will appear on the screen.

Select the **Margins** tab, and set all margins to zero (0).

Select the Paper Size tab, then select one of the standard sizes or **Custom Size** from the Paper Size text box.

Note: Custom requires changing the Width and Height in the text boxes to match the size of the piece or setting the size required for printing the records.

Select OK. After you select OK, a warning may appear if the wrong printer is selected. Click on the **Ignore** button when this is the case.

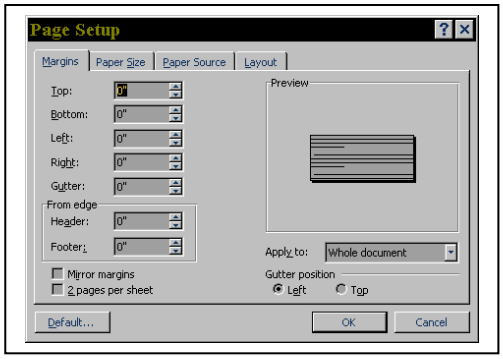
Select the **Print Layout** from the VIEW menu. Now the windows screen is in a "what you see is what you get" (WYSIWYG) mode.

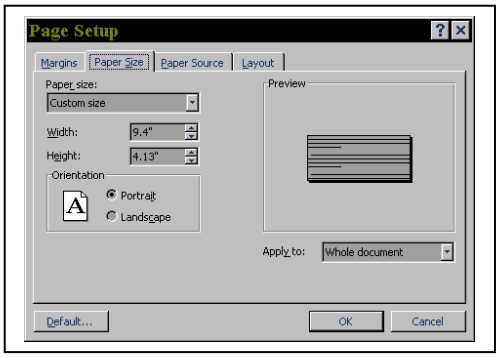
Select **Options** from the TOOLS menu. A OPTONS dialog box will appear on the screen.

Select the Compatibility tab from the OPTION dialog box.

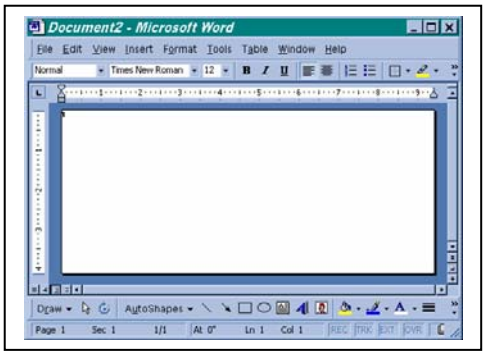
Select **Custom** from the RECOMMENDED OPTION FOR: pull down list box.

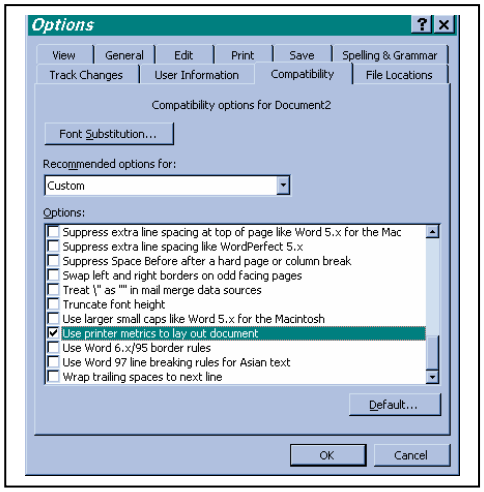
From the OPTIONS: list check the box next to the **Use Printer Metrics to layout document**. Remove the check from all other options in the list.



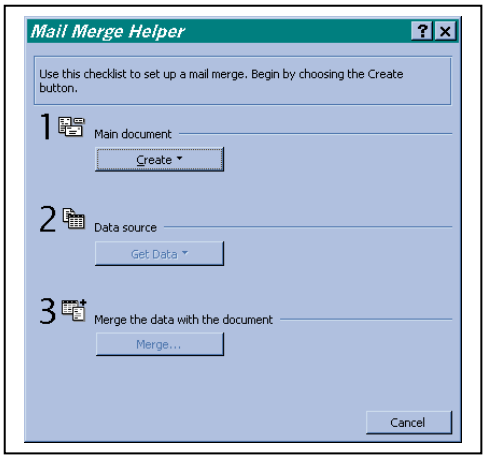


Microsoft Word
One or more margins are set outside the printable area of the page. Choose the Fix button to increase the appropriate margins.
Fix
Ignore




Options
View
General
Edit
Print
Save
Spelling & Grammar
Track Changes
User Information
Compatibility
File Locations
Compatibility options for Document2
Font Substitution...
Recommended options for:
Custom
Options:
Suppress extra line spacing at top of page like Word 5.x for the Mac
Suppress extra line spacing like WordPerfect 5.x
Suppress Space Before after a hard page or column break
Swap left and right borders on odd facing pages
Treat \" as "" in mail merge data sources
Truncate font height
Use larger small caps like Word 5.x for the Macintosh
Use printer metrics to lay out document
Use Word 6.x/95 border rules
Use Word 97 line breaking rules for Asian text
Wrap trailing spaces to next line
Default...
OK
Cancel

To make a Mail Merge select **Mail Merge** from the TOOLS menu. The Mail Merge Helper dialog box similar to the one to the right will appear.



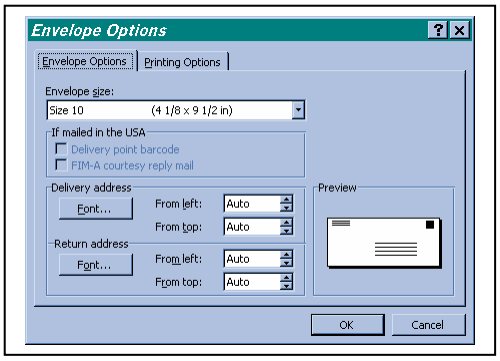
Select the **Create** pull down menu.

Select **Form Letter**. Select the **Active Window** as the document that you wish to use.

Now the Data Source will allow you to select Get Data from the Mail Merge Helper. The Get Data dialog box will appear.

Select the file you wish to merge with your MS Word document. Windows will need further verification of the type of database files in some cases. A **Confirm Data Source** dialog box will appear with the options to select from. Highlight the correct option and select OK.

A "**Envelope Options**" dialog box will appear. Check the Envelope Size drop down box matches your selection. Adjust the measurements where the records will print, font size and type. Select OK button when the form looks correct. You will get a message similar to the one below stating "Word found no merge fields in your main document. Click on the **Edit Main Document button**.

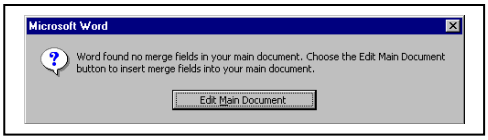


Move the cursor to the position you would like the address to begin.

Select **Insert Merge Field** from the toolbar.

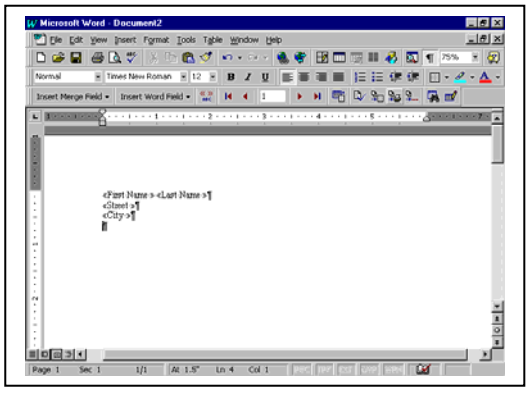
Select the fields to insert them on the form.

Select the OK button. A new Word Document will appear with the fields that were selected.


Microsoft Word
Word found no merge fields in your main document. Choose the Edit Main Document button to insert merge fields into your main document.
Edit Main Document

Select the **Merge** or **Merge to Printer** icon from the toolbar.

Your page should look similar to the last example below.



The Print dialog box will appear.

Make sure the right Bryce printer is selected.

Click OK to print.

Shipping Dimensions and Weight

Height:	14.7 inches	37 cm
Width.	16.2 inches	41 cm
Depth:	21.7 inches	55 cm
Weight:	40 lbs. (18.2 kg) including accessories.	

Electrical

Voltage:	Selectable voltages: 100v, 120v, 220v, and 240v
Fuse Type (100 – 120 volts AC + or - 10%):	One 3 AG 2 Amp Slo-Blo fuse, at 250 volts, is required/provided.
Frequency:	50 / 60 Hertz. + or - 3 Hz.
Fuse Type (220 – 240 volts AC + or - 10%):	Two 5 x 20mm. 1.5 Amp Slo-Blo fuses, at 250 volts, one for each leg, is required/provided.

Environmental Conditions.

Operating. (Power On.),	Temperature. 55.F - 95.F (12.C - 35.C), Humidity. 8% - 80% Die maximale Umgebungstemperatur betraegt 35C.
Non Operating. (Power Off.),	Temperature. 42.F - 100.F (5.C - 40.C), Humidity. 10% - 90%

Effective Print Area

Maximum Height of print area – 15 inches (38 cm)
Maximum length of print line – 9.4 inches (23.8 cm)

Print Density and Resolution.	**Black**
Draft:-	300 x 150 Dots per inch
Letter:-	300 x 300 Dots per inch
Executive:-	600 x 300 Dots per inch

Media Size	**inches**	**millimeters**
Minimum	3 x 5 inches	76 x 127 mm
Maximum	12.5 x 15 inches	317 x 381 mm

Media Thickness	**inches**	**millimeters**
Minimum	0.003 inches	0.0762 mm
Maximum	0.0625 inches	1.587 mm

Printing Speeds in #10 envelopes per hour

Print Quality	Max Throughput / Hr	3" x 5" (7.6cm x 13 cm) Media Throughput / Hr
Draft:-	5,000	5,200
Letter:-	4,600	4,200
Executive:-	4,000	3,800

Figures are based on 18 characters per line, 10 pt. Font, 3 lines per address and no barcode.

Fonts

5 Internal Fonts that are scalable Unlimited TrueType Fonts (downloadable)

Point Size

Smallest	**Largest**
4 point	30 point

The Interface Panel

The interface panel is located on the side of the machine. It contains the main power switch, the power receptacle and fuse. The interface ports (parallel and serial) are the interface connections between the 5K-LE and your computer.

1. Connect the line cord from the printer receptacle to a properly grounded outlet box. Do not use an adapter plug. Avoid using outlets that are controlled by wall switches and shared with other equipment.
2. Connect the interface cable from the computer to the appropriate connector on the printer interface panel. The typical cable length is six (6) feet long (182. 9 cm) for parallel and fifteen (15) feet (457.2 cm) long for serial.

DELIVERY POINT BAR CODE

NAIC Certification

This Address Printer is equipped with firmware for printing the United States Postal Service (USPS) Delivery Point Bar Code (DPBC). The printer is Certified by the National Address Information Center (NAIC). Certification from the NAIC indicates the printed POSTNET Bar - Code meets the required standards for letter size mail to receive USPS Delivery Point Bar Coded rates.

Delivery Point Bar Code

The Address Printer uses the data sent down on the last line to print the DPBC. Specifications for a valid addresses can be found in the Domestic Mail Manual (DMM).

Alternate Address Formats

The option to send the Address Printer a ZIP + 4 + 2 or ZIP + 4 + 3 address to print a Delivery Point Bar Code is available. Only the addresses with ZIP + 4 or ZIP + 4 + 3 digits are allowed by the USPS to appear in the address block.

Valid Address Formats

Address ZIP Codes	Data Sent to Printer	Printed in Address Block	Bar - Code Printed
ZIP + 4 + 2*	98765-1234~12	98765-1234	DPBC
ZIP + 4 + 3*	98765-1234~123	98765-1234	DPBC
ZIP + 4 + 3	98765-1234123	98765-1234123	DPBC
Illegal Format			
ZIP + 4	98765-1234	98765-1234	9 Digit Bar - Code
ZIP + 4 + 2	98765-123412	98765-123412	No Bar - Code

* Add the Tilde (~) after the ZIP + 4 digits so the 2- or 3 - digit add on will not be printed in the address block.

ZIP + 4 + 2

The Address Printer will determine the correction digit and print the DPBC according to the ZIP code received. Using the ZIP + 4 + 2 format requires that the Tilde (~) character be sent between the ZIP + 4 and 2- digit characters. Only ZIP + 4 digits will be printed in the address block.

ZIP + 4 + 3

The Address Printer will print the DPBC according to the ZIP code received. Two formats of printing the Zip Code in the address block are available. First option is to print all the digits of the ZIP + 4 + 3 in the address block. Second option is to only print the ZIP + 4 digits in the address block, by placing the Tilde (~) character between the ZIP + 4 and 3- digit characters.

PLANET Code Bar Code

Postal Alpha-Numeric Encoding Technique (PLANET) provides features that are not currently available with the POSTNET barcode. PLANET bar codes are broken down to a list of planets.

The following is a list of each planet and the applications supported by that planet's particular PLANET bar code.

- **Jupiter**- A 12-digit barcode containing mail piece rate, presort bureau origin, and customer identification.
- **Mercury** - A 12-digit barcode used for CONFIRM or CIPS service.
- **Earth**- A 12 digit barcode used for sorting foreign mail.
- **Pluto**- A 12 digit barcode for automated address correction requests.
- **Saturn**- A 12 or 14 digit barcode for RTS or CFS mail.
- **Neptune** - A 12 digit barcode for mailer use.
- **Venus** - A 12 or 14 digit barcode used for electronic tracking.

The PLANET bar codes have the exact same dimensional requirements as POSTNET barcodes. Most PLANET barcodes are placed in the address block portion of the mail piece. Only PLANET **Earth** and **Saturn** barcodes may be printed in the traditional lower right area.

Example of using a PLANET bar code in the address block while placing a USPS barcode below the address.

**********5 DIGIT
#JAN93 000 MD #123BL

XYZ Corporation
123 Washington Road
Anytown, CT **06470-1234**

A PLANET code barcode will print on a line when the first two characters in the line are a **tilde** followed by the **pound** character (**~#)** then the digits that represent the desired PLANET code.

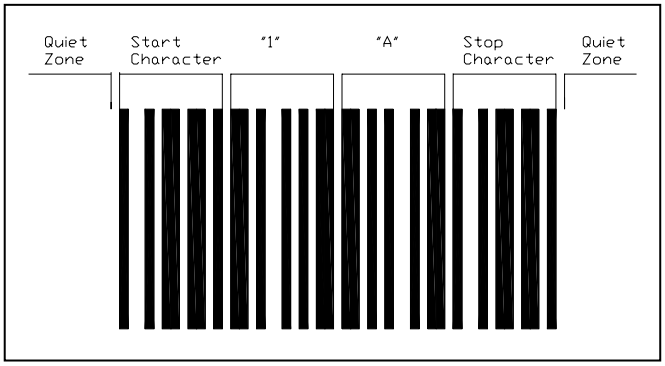
ASCII text sent to produce the above example is:
**********5 DIGIT
#JAN93 000 MD #123BL
~#123456789012 (PLANET Code sent)

XYZ Corporation
123 Washington Road
Anytown, CT **06470-1234~123** (USPS information sent)

Code 39 (3 of 9) Bar

Code

The printer includes the font Code 39 Bar Code: also called Code 3 of 9, which is a full alphanumeric character set that includes unique start and stop characters and seven additional characters. Each Code39 character has three wide elements out of a total of nine elements. The nine elements consist of five bars and four spaces.

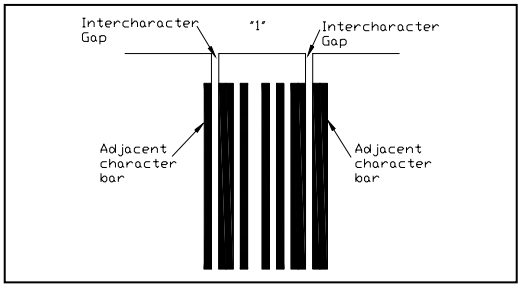


Code 39 Structure

Every Code 39 Bar Code consists of a leading quiet zone, a start character, alphanumeric characters representing data, a stop character and a trailing quiet zone.

Code 39 Encoded Information

Each Code 39 character consists of a series of thin bars, thick bars and spaces, each represented by five bars and the four intervening spaces. The characters are separated by an inter-character gap.



Each bar or space is either one of two widths, referred to as “wide” and “narrow”. The particular pattern of wide and narrow bars or spaces determines the character being encoded. Every character consist of thee wide and six narrow elements.

Start & Stop Characters [* (asterisk)]

The unique start and stop character ***** (**asterisk**) is used to identify the leading and tailing ends of the code 39 bar code. This character shall be used only at the beginning and the end of the symbol.

Quiet Zones [space (sp)]

Quiet zones are spaces (SP) and must precede the start character and must follow the stop character. Quiet zones should be at least the width of one space at 10 cpi.

Printing with Code 39

To utilize the Code 39 bar code font the printer control code must be entered in the software to call the font. Once the font is called a space (SP) must be entered. The space should be followed by the start character *** (asterisk)**. Then send the data to be encoded as a code 39 bar code. End the data with the stop character *** (asterisk)** followed by a space (SP).

Use the following PCL printer escape (←) command to call the Code 39 font “← (s53248T”

Printer Command	**HEX Equivalent**	**DEC Equivalent**	**Description**
←(s53248T	1B 28 73 35 33 32 34 38 54	027 040 115 053 051 050 052 056 084	Code39 Font
*	2A	042	Start / Stop character
SP	20	032	Space (Quiet Zone)

Glossary

cable

Wires that carry the information between the computer and the printer.

Centronic parallel interface

A device for connecting printers and other peripheral devices to a computer. It transmits a full byte at a time.

Character

A printable letter or symbol.

character height

The height of a uppercase letter. A character height is measured in points.

characters per inch

The number of character printed in a horizontal inch. Also called pitch.

character set

The set of characters or symbols that make up a language.

clean print cartridge

Describes the process of removing dried ink from the nozzles of the ink jet cartridge.

configuration

The settings used by the printer to communicate with the computer. Also the internal settings in the printer that control the print job.

control code

The instructions sent to the printer to describe how to perform the print job.

control panel

The buttons and display that are used to manually change the printers settings.

cpi

See **characters per inch**.

data communications

The sending of data from the computer to a peripheral device i.e. the printer.

dots per inch

The number of ink dots printed in one horizontal inch. The larger the number the better the resolution of print.

double feeding

Two or more pieces of media feed at the same time or without separation.

Dpi

See **dots per inch**.

draft quality

Print resolution using 150 dpi which saves ink and allows faster printing of a document.

Drivers

A file used by the computers software to communicate commands and information that the printer needs to layout and print a document.

embedded printer commands

Commands sent in a record or document to instruct the printer to change printing options.

EPROM

Electronic Programmable Read Only Memory

escape character

A special non-printable character (ESC / ➔) used to instruct the printer to change printing options.

escape sequence

Commands sent beginning with the escape character that instruct the printer to change printing options: fonts, page orientation, etc.

feed gap

Opening between the ends of the H-Block Assembly and the Feed Rollers so the media is fed one at a time.

font

A set of printable characters with consistent style and characteristics.

Grounded

A electrical circuit that has a voltage of zero.

Handshaking

A method for the computer to communicate with peripheral devices to ensure complete transfer of information.

hex dump

A printer option that allows all the information and commands sent to the printer are printed as base 16 digits.

Internal test address message

The preprogrammed Address that is printed when the Test Env. button is pressed.

interface cable

The cable that connects the printer or other device to the computer.

interface connector

The connectors on both ends of the interface cable that insert into the interface ports.

internal fonts

Resident or built-in fonts that reside inside the printer.

Jam

See Paper Jam.

letter quality

Print resolution using 200 dpi which saves ink and provides a high quality document.

lines per inch

The number of lines printed in one vertical inch.

Menu directories

The list of available printer controls that appear on the bottom of the LCD display. A directory can contain other directories called sub-directories.

Offline

The printer will no longer respond to information sent from the computer.

Online

The printer will accept and respond to information sent from the computer.

outline fonts

Scaleable printer fonts.

paper jam

When media gets stuck in the printer.

Parity

An error checking method used when communicating between the computer and a peripheral device.

PCL commands

A standard printer language developed of commands to access printer features or options.

point size

A measurement standard for Character Height. One point represents one seventy-seconds of an inch.

Port

See **Printer Interface Port**.

Postal regulations

Rules and guidelines setup by the United States Postal Service (USPS) for mail.

power socket

The socket on the back of the printer where the line cord is connected.

print cartridge

The cartridge that contains the ink for printing.

print quality

The quality of print, such as the resolution, sharpness of the image or font.

printer driver

See **Drivers**.

Record

A collection of related fields that make up the name and address of an individual in a mailing-list file.

sans serif

A font typeface that contains no serifs or finishing strokes on the top or bottom of the characters.

scaleable fonts

Outline printer fonts of characters and symbols that are stored in a mathematical form and are able to be enlarged or reduced.

Spacing

The relative spacing between characters.

Stuffed media

Media that is already filled and sealed for delivery.

sub - directories

A directory within a directory.

Troubleshooting

The process of finding the cause of a problem so that a solution can be found.

Options & Supplies

The following list of option & supplies are available through your local Bryce dealer .

Replacement Parts

Description	Part Number
Paper Catch Tray	03-00245-202
Wire Form Assembly / Sliding Ramp	03-00810-201
Short Sliding Fence	10-20403-001
Long Sliding Fence	10-20403-002
Separator Finger	11-00022-001
256 RAM Expansion Card	50-53256-004
Clamp Knob	63-19013-001
Carriage Knob	63-19013-002
H-Block Knob	63-19019-001
Rubber Foot	66-11001-001

Alternative Fonts

Description	Part Number
Alpine	56-96000-001
Aurora	56-96001-001
Baxter	56-96002-001
Calico	56-96003-001
Centurion	56-96022-001
Dingbat	56-96004-001
Dingbat #2	56-96005-001
Eureka	56-96006-001
Hancock	56-96007-001
Indio	56-96008-001
Marina	56-96009-001
Memo	56-96010-001
Mettler	56-96011-001
Oakland	56-96012-001
OCR A	56-96013-001
Palomar	56-96014-001
Parker	56-96021-001
Quincy	56-96015-001
Santee	56-96016-001
Springer	56-96017-001
Stencil	56-96018-001
Stockton	56-96019-001

7 Edmond Road
Newtown, CT 06740
U.S.A.
Phone: 1 - (203) 426 – 7440
Fax: 1 - (203) 460 – 5294
http:\\www.BryceUSA.com

5K-LE

All Rights Reserved

P/N 90-00852-001 / W600297

Printed in U.S.A.